# Utah English Language Arts Core DIGITAL Book

# Section 1:

# Text Selections for 6-8 Text Complexity Band

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# Part A-Less Complex

# 1. Text: "Space Probe." Astronomy & Space: From the Big Bang to the Big Crunch

Source: <a href="http://www.corestandards.org/assets/Appendix B.pdf">http://www.corestandards.org/assets/Appendix B.pdf</a>

Genre: Informational Essay

Topic: Space Probe

Theme: Exploration

Lexile: 1310

Placement: Less Complex

Word Count: 551

"Space Probe." Astronomy & Space: From the Big Bang to the Big Crunch. Edited by Phillis Engelbert. Farmington Hills, Mich.: Gale Cengage Learning, 2009. (2009)

A space probe is an unpiloted spacecraft that leaves Earth's orbit to explore the Moon, planets, asteroids, comets, or other objects in outer space as directed by onboard computers and/or instructions send from Earth. The purpose of such missions is to make scientific observations, such as taking pictures, measuring atmospheric conditions, and collecting soil samples, and to bring or report the data back to Earth.

Numerous space probes have been launched since the former Soviet Union first fired Luna 1 toward the Moon in 1959. Probes have now visited each of the eight planets in the solar system.

In fact, two probes—Voyager 1 and Voyager 2—are approaching the edge of the solar system, for their eventual trip into the interstellar medium. By January 2008 Voyager 1 was about 9.4 billion miles (15.2 billion kilometers) from the Sun and in May 2008 it entered the heliosheath (the boundary where the solar wind is thought to end), which is the area that roughly divides the solar system from interstellar space. Voyager 2 is not quite as far as its sister probe. Voyager 1 is expected to be the first human space probe to leave the solar system. Both Voyager probes are still transmitting signals back to Earth. They are expected to help gather further information as to the true boundary of the solar system.

The earliest probes traveled to the closest extraterrestrial target, the Moon. The former Soviet Union launched a series of Luna probes that provided humans with first pictures of the far side of the Moon. In 1966, Luna 9 made the first successful landing on the Moon and sent back television footage from the Moon's surface.

The National Aeronautics and Space Administration (NASA) initially made several unsuccessful attempts to send a probe to the Moon. Not until 1964 did a Ranger probe reach its mark and send back thousands of pictures. Then, a few months after Luna 9, NASA landed Surveyor on the Moon.

In the meantime, NASA was moving ahead with the first series of planetary probes, called Mariner. Mariner 2 first reached the planet Venus in 1962. Later Mariner spacecrafts flew by Mars in 1964 and 1969, providing detailed images of that planet. In 1971, Mariner 9 became the first spacecraft to orbit Mars. During its year in orbit, Mariner 9's two television cameras transmitted footage of an intense Martian dust storm, as well as images of 90 percent of the planet's surface and the two Martian natural satellites (moons).

Encounters were also made with Mars in 1976 by the U.S. probes Viking 1 and Viking 2. Each Viking spacecraft consisted of both an orbiter and a lander. Viking 1 made the first successful soft landing on Mars on July 20, 1976. Soon after, Viking 2 landed on the opposite side of the planet. The Viking orbiters made reports on the Martian weather and photographed almost the entire surface of the planet.

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# 2. Text: Message to Congress May 25, 1961 (Part IX)

Source: jfklibrary.org

Genre: Informational Speech

**Topic: Space Exploration** 

Theme: Space Exploration

Lexile: 1100

Placement: Less Complex

Word Count: 1,109

President John F. Kennedy Delivered in person before a joint session of Congress May 25, 1961 (jfklibrary.org)

#### IX. SPACE

Finally, if we are to win the battle that is now going on around the world between freedom and tyranny, the dramatic achievements in space which occurred in recent weeks should have made clear to us all, as did the Sputnik in 1957, the impact of this adventure on the minds of men everywhere, who are attempting to make a determination of which road they should take. Since early in my term, our efforts in space have been under review. With the advice of the Vice President, who is Chairman of the National Space Council, we have examined where we are strong and where we are not, where we may succeed and where we may not. Now it is time to take longer strides--time for a great new American enterprise--time for this nation to take a clearly leading role in space achievement, which in many ways may hold the key to our future on earth.

I believe we possess all the resources and talents necessary. But the facts of the matter are that we have never made the national decisions or marshalled the national resources required for such leadership. We have never specified long-range goals on an urgent time schedule, or managed our resources and our time so as to insure their fulfillment.

Recognizing the head start obtained by the Soviets with their large rocket engines, which gives them many months of leadtime, and recognizing the likelihood that they will exploit this lead for some time to come in still more impressive successes, we nevertheless are required to make new efforts on our own. For while we cannot guarantee that we shall one day be first, we can guarantee that any failure to make this effort will make us last. We take an additional risk by making it in full view of the world, but as shown by the feat of astronaut Shepard, this very risk enhances our stature when we are successful. But this is not merely a race. Space is open to us now; and our eagerness to share its meaning is not governed by the efforts of others. We go into space because whatever mankind must undertake,

free men must fully share.

I therefore ask the Congress, above and beyond the increases I have earlier requested for space activities, to provide the funds which are needed to meet the following national goals:

First, I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the moon and returning him safely to the earth. No single space project in this period will be more impressive to mankind, or more important for the long-range exploration of space; and none will be so difficult or expensive to accomplish. We propose to accelerate the development of the appropriate lunar space craft. We propose to develop alternate liquid and solid fuel boosters, much larger than any now being developed, until certain which is superior. We propose additional funds for other engine development and for unmanned explorations--explorations which are particularly important for one purpose which this nation will never overlook: the survival of the man who first makes this daring flight. But in a very real sense, it will not be one man going to the moon--if we make this judgment affirmatively, it will be an entire nation. For all of us must work to put him there.

Secondly, an additional 23 million dollars, together with 7 million dollars already available, will accelerate development of the Rover nuclear rocket. This gives promise of some day providing a means for even more exciting and ambitious exploration of space, perhaps beyond the moon, perhaps to the very end of the solar system itself.

Third, an additional 50 million dollars will make the most of our present leadership, by accelerating the use of space satellites for world-wide communications.

Fourth, an additional 75 million dollars--of which 53 million dollars is for the Weather Bureau--will help give us at the earliest possible time a satellite system for world-wide weather observation.

Let it be clear--and this is a judgment which the Members of the Congress must finally make--let it be clear that I am asking the Congress and the country to accept a firm commitment to a new course of action, a course which will last for many years and carry very heavy costs: 531 million dollars in fiscal '62--an estimated seven to nine billion dollars additional over the next five years. If we are to go only half way, or reduce our sights in the face of difficulty, in my judgment it would be better not to go at all.

Now this is a choice which this country must make, and I am confident that under the leadership of the Space Committees of the Congress, and the Appropriating Committees, that you will consider the matter carefully.

It is a most important decision that we make as a nation. But all of you have lived through the last four years and have seen the significance of space and the adventures in space, and no one can predict with certainty what the ultimate meaning will be of mastery of space.

I believe we should go to the moon. But I think every citizen of this country as well as the Members of the Congress should consider the matter carefully in making their judgment, to which we have given attention over many weeks and months, because it is a heavy burden, and there is no sense in agreeing or desiring that the

United States take an affirmative position in outer space, unless we are prepared to do the work and bear the burdens to make it successful. If we are not, we should decide today and this year.

This decision demands a major national commitment of scientific and technical manpower, materiel and facilities, and the possibility of their diversion from other important activities where they are already thinly spread. It means a degree of dedication, organization and discipline which have not always characterized our research and development efforts. It means we cannot afford undue work stoppages, inflated costs of material or talent, wasteful interagency rivalries, or a high turnover of key personnel.

New objectives and new money cannot solve these problems. They could in fact, aggravate them further--unless every scientist, every engineer, every serviceman, every technician, contractor, and civil servant gives his personal pledge that this nation will move forward, with the full speed of freedom, in the exciting adventure of space.

## 3. Text: Lighting a fire within?

Genre: Informational Article

Topic: 2002 Winter Olympics

Theme: Olympics

Lexile: 990

Placement: Less Complex

Word Count: 1050

Lighting a fire within?

Many people questioned the ability for the United States to host an international event of this magnitude, so shortly after devastating terrorist attacks. But Utah met the challenge, exceeding expectations. Nations came together and celebrated the incredible Olympic spirit. Together, just as the 2002 Olympic theme suggested, a fire was lit from within.

America welcomed the world beginning February 8, in a celebration that didn't end until the Olympics were over on February 24.

The Olympics were full of surprises at every turn of the road. From the unforgettable stories about athletes and their determination to win, to their performances that inspired the world, these games inspired and changed us all. Each sport has stories worth retelling...

#### Ice Hockey

With special honor, the 1980 Olympic US Hockey Dream Team lit the torch at the opening ceremonies. The Canadian men's team deserves special applause. The 2002 Olympic Winter Games saw them champion over the United States in a 5-2 gold medal-winning game. This was the first time in 50 years that the Canadian men took home such glory! The Canadian women's team also won gold.

#### **Bobsleigh**

Not only was this the first women's bobsleigh competition, United States' Jill Bakken and Vonettta Flowers struck gold. Flowers was the first African American to win a medal in the Winter Olympic Games. In the men's competition, Germany dominated both men's events with Christoph Langen and Andre Lange both taking gold in the events respectively. USA's men made an appearance in the medal stand after a 46-year absence.

#### 4. Text: Meet the Dalai Lama

Source: <a href="http://kids.nathionalgeographic.com/kids/stories/peopleplaces/meet-the-dalailama/">http://kids.nathionalgeographic.com/kids/stories/peopleplaces/meet-the-dalailama/</a>

Genre: Editorial Article

Topic: Dalai Lama

Theme: Tolerance/Compassion

Lexile: 740

Placement: Less Complex

Word Count: 554

#### Meet the Dalai Lama

What if you became the leader of your people when you were just 15 years old? That's what happened to Lhamo Thondup, better known as the Dalai Lama. In 1950 he became the political leader of Tibet, now a part of China. But the Dalai Lama is more than just the head of his government. Promoting peace, compassion, and tolerance, he is also the spiritual leader of millions of people. Here's what he told NG Kids about being a hero for peace.

National Geographic Kids: You work with an organization called PeaceJam, in which Nobel Peace Prize winners like you inspire kids to find peaceful solutions to problems. How can kids really help solve problems such as poverty and terrorism through peace?

The Dalai Lama: You need patience and determination. Study and become an expert in something, because education can bring compassion, peace, and harmony. That will bring self-confidence and stability. When you have all that, then you can influence others as an example. That's the way to create more peaceful communities.

NG Kids: Can one kid really make a difference in the world? The Dalai Lama: Yes. Because if everyone works hard, we can all make a difference.

NG Kids: How can kids promote peace in their everyday lives? The Dalai Lama: Look at situations from all angles, and you will become more open. We all have to live together, so we might as well live together happily. Realizing this helps you feel as if this whole world is one home.

NG Kids: You began training as the Dalai Lama when you were just five years old, but you still had time to play. What was your favorite game as a child?

The Dalai Lama: I made friends with two white mice who would always sneak into my room when I was studying, and they would try to distract me.

NG Kids: You have been recognized for your concern about the environment. Why is it so important to protect the planet?

The Dalai Lama: We need to care for every part of the Earth and the life upon it, because this affects future generations.

NG Kids: What are some of your favorite green tips that kids can use to help save the environment?

The Dalai Lama: When you leave your room, switch off the light. Recycle garbage—this one is easy! The most important thing is that these simple practices become a big part of your daily life. Then together we can make a big impact.

#### One World

The Dalai Lama tells you how to practice these important human values for a more peaceful planet.

# Compassion

Recognize others as brothers and sisters who have every right to overcome their problems—just like you do.

#### **Forgiveness**

Learn from mistakes—whether they are yours or others'—and try not to repeat them in the future. Forgive yourself and others so that mistakes are not repeated.

#### Tolerance

You won't always agree or get along with everyone. But your future is with these people. So develop a sense of caring, tolerance, or compassion for everyone, even those you don't get along with.

#### Contentment

It's a mistake to place all our hopes for happiness on material gains. So be satisfied with whatever you have, and you will have more inner peace.

National Geographic Kids magazine, May 2009

# 5. Text: Address to the Nation on the Explosion of the Space Shuttle Challenger (January 28, 1986)

Source: reagansheritage.org

Genre: Informational Speech

**Topic: Space Exploration** 

Theme: Space Exploration

Lexile: 820

Placement: Less Complex

Word Count: 663

On a crisp winter's morning in Florida, January 28, 1986, the Space Shuttle Challenger was launched with seven persons aboard, including Christa McAuliffe, a 37-year-old teacher from New Hampshire, who was to be the first ordinary citizen in space.

The flight began at 11:38 a.m. and ended just 73 seconds later in an explosion apparently caused by a failure in the joint between the two lower segments of the right solid rocket motor. The explosion caused the complete structural breakup of the Space Shuttle, killing all seven crew members. The disaster was witnessed live on TV by many thousands of school children watching McAuliffe venture on what she had described as "the ultimate field trip."

That evening, President Ronald Reagan consoled the Nation from the Oval Office.

Ladies and Gentlemen, I'd planned to speak to you tonight to report on the state of the Union, but the events of earlier today have led me to change those plans. Today is a day for mourning and remembering. Nancy and I are pained to the core by the tragedy of the shuttle Challenger. We know we share this pain with all of the people of our country. This is truly a national loss.

Nineteen years ago, almost to the day, we lost three astronauts in a terrible accident on the ground. But, we've never lost an astronaut in flight; we've never had a tragedy like this. And perhaps we've forgotten the courage it took for the crew of the shuttle; but they, the Challenger Seven, were aware of the dangers, but overcame them and did their jobs brilliantly. We mourn seven heroes: Michael Smith, Dick Scobee, Judith Resnik, Ronald McNair, Ellison Onizuka, Gregory Jarvis, and Christa McAuliffe. We mourn their loss as a nation together.

For the families of the seven, we cannot bear, as you do, the full impact of this tragedy. But we feel the loss, and we're thinking about you so very much. Your loved ones were daring and brave, and they had that special grace, that special spirit that says, 'Give me a challenge and I'll meet it with joy.' They had a hunger to explore the universe and discover its truths. They wished to serve, and they did. They served all of us.

We've grown used to wonders in this century. It's hard to dazzle us. But for twenty-five years the United States space program has been doing just that. We've grown used to the idea of space, and perhaps we forget that we've only just begun. We're still pioneers. They, the members of the Challenger crew, were pioneers.

And I want to say something to the schoolchildren of America who were watching the live coverage of the shuttle's takeoff. I know it is hard to understand, but sometimes painful things like this happen. It's all part of the process of exploration and discovery. It's all part of taking a chance and expanding man's horizons. The future doesn't belong to the fainthearted; it belongs to the brave. The Challenger crew was pulling us into the future, and we'll continue to follow them.

I've always had great faith in and respect for our space program, and what happened today does nothing to diminish it. We don't hide our space program. We don't keep secrets and cover things up. We do it all up front and in public. That's the way freedom is, and we wouldn't change it for a minute. We'll continue our quest in space. There will be more shuttle flights and more shuttle crews and, yes, more volunteers, more civilians, more teachers in space. Nothing ends here; our hopes and our journeys continue. I want to add that I wish I could talk to every man and woman who works for NASA or who worked on this mission and tell them: "Your dedication and professionalism have moved and impressed us for decades. And we know of your anguish. We share it."

There's a coincidence today. On this day 390 years ago, the great explorer Sir Francis Drake died aboard ship off the coast of Panama. In his lifetime the great frontiers were the oceans, and a historian later said, 'He lived by the sea, died on it, and was buried in it.' Well, today we can say of the Challenger crew: Their dedication was, like Drake's, complete.

The crew of the space shuttle Challenger honoured us by the manner in which they lived their lives. We will never forget them, nor the last time we saw them, this morning, as they prepared for the journey and waved goodbye and 'slipped the surly bonds of earth' to 'touch the face of God.'

Thank you.

President Ronald Reagan - January 28, 1986

# 6. Text: There's a New Planet in Sight

Source: http://kids.nationalgeographic.com/kids/stories/spacescience/newplanet

Genre: Informational

Topic: Space Exploration/Technology

Theme: Exploration/Technology

Lexile: 1230

Placement: Less Complex

Word Count: 403

There's a New Planet in Sight

An international team of astronomers has discovered a planet slightly larger than Jupiter that orbits a star 500 light years from Earth. A super-duper telescope was not even required; they found the planet using several small telescopes much like those used by amateur astronomers.

The new planet is named TrES-2 because it is the second such planet found by scientists working on the Trans-Atlantic Exoplanet Survey (TrES). It is a transiting planet, meaning it can be seen transiting, or moving, across the star it orbits.

Ted Dunham, an instrument scientist at Arizona's Lowell Observatory, says transiting planets are special because researchers can answer a lot of questions about them. All it takes is some math and some observations about the planet and its relationship to its star.

Some key questions: How big is it? How long is its year (the time it takes to orbit around its star)? How much would you weigh if you were there?

"TrES-2 is a little bigger than Jupiter, has a 'year' that is a little less than two and a half days, and is a little more massive than Jupiter," explains Dunham.

From its mass and radius (the distance across the planet) scientists can figure out the density of the planet—whether it is made of rock, gas, or a combination of the two. (TrES-2 is made up mainly of gas).

They can also work out the surface gravity, says Dunham: "You would feel a little more than twice as heavy as on Earth if you were on TrES-2."

There's a catch, though. "The temperature is about 1,500 degrees Celsius (2,732 degrees Fahrenheit), and there is nothing solid to stand on. It isn't a likely place to look for life," he says.

Dunham says that to find smaller planets like Earth or Venus, scientists need to send instruments on a mission to space. NASA scientists are planning one called the Kepler Mission, which could begin in two years.

TrES-2 is in the part of the sky that the Kepler Mission will study. Since astronomers already know so much about it, they can use it to help make sure their instruments are working.

"It's really a blast to be working on finding planets orbiting other stars," says Dunham. "People have wondered for millennia whether there are other planets like ours, maybe with living things on them. The next ten years should be fun. Stay tuned!"

Text by Catherine Clarke Fox

## 7. Text: Drinking Water: Bottled or From the Tap?

Author: Catherine Clarke Fox

Source: http://kids.nationalgeographic.com/kids/stories/spacescience/water-

bottle-pollution/

Genre: magazine article

Topic: water bottles

Theme: environmental impact of water bottles

Lexile: 930

Placement: Less Complex

Word count: 425

# **Drinking Water: Bottled or From the Tap?**

If your family is like many in the United States, unloading the week's groceries includes hauling a case or two of bottled water into your home. On your way to a soccer game or activity, it's easy to grab a cold one right out of the fridge, right?

But all those plastic bottles use a lot of fossil fuels and pollute the environment. In fact, Americans buy more bottled water than any other nation in the world, adding 29 billion water bottles a year to the problem. In order to make all these bottles, manufacturers use 17 million barrels of crude oil. That's enough oil to keep a million cars going for twelve months.



For every six water bottles we use, only one makes it to the recy

Imagine a water bottle filled a quarter of the way up with oil. That's about how much oil was needed to produce the bottle.

So why don't more people drink water straight from the kitchen faucet? Some people drink bottled water because they think it is better for them than water out of the tap, but that's not true. In the United States, local governments make sure water from the faucet is safe. There is also growing concern that chemicals in the bottles themselves may leach into the water.

People love the convenience of bottled water. But maybe if they realized the problems it causes, they would try drinking from a glass at home or carrying water in a refillable steel container instead of plastic.

Plastic bottle recycling can help—instead of going out with the trash, plastic bottles can be turned into items like carpeting or cozy fleece clothing.

Unfortunately, for every six water bottles we use, only one makes it to the recycling bin. The rest are sent to landfills. Or, even worse, they end up as trash on the land and in rivers, lakes, and the ocean. Plastic bottles take many hundreds of years to disintegrate.

Water is good for you, so keep drinking it. But think about how often you use water bottles, and see if you can make a change.

And yes, you can make a difference. Remember this: Recycling one plastic bottle can save enough energy to power a 60-watt light bulb for six hours.

by Catherine Clarke Fox

# 8. Text: "First They Came"

Author: Martin Niemoller

Source: <a href="http://www.spartacus.schoolnet.co.uk/GERniemoller.htm">http://www.spartacus.schoolnet.co.uk/GERniemoller.htm</a>

Genre: Poem

Topic: Holocaust

Theme: Indifference

Lexile: 880

Placement: Less Complex

Word Count: 96

# Martin Niemöller (1892-1984)

First they came for the communists, and I did not speak out -

Because I was not a communist;

Then they came for the Socialists, and I did not speak out --

Because I was not a Socialist.

Then they came for the Trade Unionists, and I did not speak out --

Because I was not a Trade Unionist.

Then they came for the Jews, and I did not speak out --

Because I was not a Jew.

Then they came for me -- and there was no one left to speak for me.

# 9. Text: Mummy Mystery

Source:

magma.nationalgeographic.com/ngexplorer/1103/articles/mainarticle.html

Genre: Informational Article

**Topic: Mummies** 

Theme: King Tutankhamun

Lexile: 640

Placement: Less Complex

Word Count: 1128

Hawass, Dr. Zahi. Mummy Mystery. National Geographic Kids. March 2011

#### **Mummy Mystery**

It's hot inside the mummy's tomb. Yet no one is complaining. A member of my team holds up a small tool that looks like a corkscrew. He places it against the mummy's leg bone and cranks it. I wince. It makes a rusty, squeaking sound as it bores into the ancient bone.

Hanging out with mummies may seem scary, but I do it all the time. I'm an **archaeologist**. You've probably seen photos of me in my Indiana Jones hat. I wear it most days to protect my eyes from the blazing sun. Working outside digging up ancient objects is hot, slow, dirty, and difficult work.

Today, I'm inside one of the most famous tombs in the world. King Tut is buried here. His full name is Tutankhamun. I look more like a doctor than an archaeologist. I'm wearing a doctor's white lab coat. Surgical gloves cover my hands. A surgical mask hides most of my face. Only my eyes are uncovered. I'm dressed to protect this marvelous mummy from dust and germs.

#### **Tomb Raiders**

Protecting Tut is important. He lived and died more than 3,000 years ago. We don't know much about that time.

Centuries passed. People forgot about Tut and where he was buried. Then about 90 years ago, archaeologists found his tomb. It's one of 63 tombs carved into cliffs in the middle of modern Egypt. So many kings are buried here, we call it the Valley of the Kings.

Over time, robbers raided many of the valley's royal tombs. Luckily, they never found

Tut's tomb. It still held Tut's mummy and other **artifacts**, or objects from the past.

# **Crowning the Boy King**

We've learned much from the artifacts found in Tut's tomb. They tell a stunning story about Tut. It's about a young prince. It's about a military leader. It's about a king who died before he could fully rule his kingdom.

The story begins with Tut's father, Akhenaten. He was the king of Egypt. Tut grew up in a city called Amarna. The palace there had courtyards with lush gardens and flowing fountains.

Tut became king after his father died. He was about nine. Most kings weren't that young. Nothing about Tut was typical, though. For example, he was a king with two crowns. That's because ancient Egypt was a divided country. A white crown represented one part of the country. A red crown represented the other. Wearing the two crowns meant Tut ruled both lands as one.

Tut may have had the crowns of power, but he didn't have real power. Because he was still a boy, he had adults who helped him rule. They had the real power. Just as Tut became old enough to rule on his own, he died. The question of how he died has been a great mystery.

# **Royal Living**

How Tut lived might help answer how he died. The ancient artifacts from his tomb tell us much about his daily life.

From head to toe, he dressed well. Some of his clothes were plain. Others were covered in beads and sewn with colorful threads. He wore heavy gold bracelets, rings, necklaces, and even earrings. Some of his sandals have painted portraits of his enemies. Every time Tut took a step, it looked like he was crushing his foes.

The king ate bread, cake, and meat. He munched on chickpeas, lentils, and vegetables. For dessert, he liked honey, dates, figs, and other fruits.

#### The Warrior King

He may have liked to hunt. Images carved into a golden fan show Tut hunting ostriches. On one side, he is shooting at them from his chariot. On the other side, he is coming home with the birds he has killed.

Tut's life was not all fun and games, though. As king, he had to lead an army. Tut may have driven a chariot to lead his army as they battled Egypt's enemies.

It's not easy bouncing at high speed in a chariot, shooting arrows. It's even harder when

foes are shooting back. So Tut had to practice. From chariot driving to hunting, the ancient artifacts show a king who was active. Yet the more than 100 walking sticks in Tut's tomb may tell us something else. Why would a young man need so many walking sticks?

# The Mummy's Secret

The answer to this question is also in Tut's tomb. No, it's not in the objects in the tomb. I now know it's in the mummy itself.

Archaeologists have studied Tut's mummy several times. They've taken x-rays that showed a hole in the back of the mummy's skull. The hole made many people—even me—think Tut had been murdered.

I examined Tut's mummy for the first time several years ago. I will never forget that moment. I never thought I would get the chance to be that close to him. When I looked into Tut's face, I felt such joy.

My team used a CT scanner to take 1,700 pictures of Tut's body. We used the pictures to make a three-dimensional image of him. This image told us that Tut died when he was 19. It also showed that a murderer didn't make the hole in the back of his head. Instead, mummy makers made it after Tut had died.

I was shocked. All my life, I thought this hole meant Tut had been murdered. Now I had to find what really killed him. I looked for new answers in the scan. It showed that Tut's left leg was broken. A wound over the break could have gotten infected. Infections can kill.

The scans also showed that Tut had a deformed foot. He had a bone disease. So the walking sticks were not just symbols of power. He needed a cane to walk.

# **Testing Tut**

Everything was beginning to make sense. Still, I needed more information. That's why I took samples of the king's **genes**.

The tests confirmed that Tut had a bone disease. They also showed that he had malaria. It's a disease carried by infected mosquitoes. Their bite can kill their victims.

Putting everything together, I believe we have solved the mystery of Tut's death. The answers came from the walking sticks, the x-rays, the CT scans, the gene tests, and our thinking as scientists. Our **theory** is that Tut was weakened by a bone disease. When he broke his leg, an infection quickly spread. The infection and the malaria killed him.

At last, the case is closed, right? Not yet. I have new questions I hope to answer about this king and his family. I can't help it. I love digging into the unknown.

# 10. Text: Mystery of the Tattooed Mummy

Source: kids.nationalgeographic.com

Genre: Article

**Topic: Ancient Civilization** 

Theme: Mummies

Lexile: 880

Placement: Less Complex

Word Count: 535

Dr. Zahi Hawass, *Mystery of the Tattooed Mummy*, National Geographic Kids, March 2011

Deep inside an ancient pyramid in Peru, a mummy lay hidden in a gold-filled tomb. The underground chamber remained a secret for nearly 1,600 years, until an archaeologist noticed rectangular patches of soft clay in the pyramid's floor—a telltale sign of a grave. His heartbeat quickened. He suspected that someone powerful would be buried here. The archaeologist was standing in a sacred location, a courtyard near the peak of the biggest pyramid at El Brujo—a ceremonial site of the ancient Moche (MO-chay) people. The civilization's rulers, who controlled the north coast of Peru from A.D. 100 to 800, probably reserved this spot for a king or a great warrior. What valuable treasures would lie inside this leader's tomb?

**The Mummy Unwrapped** Finally, after weeks of careful digging, the scientists peered through the ancient dust. In front of them lay one of the world's largest and best-preserved mummies. As they unwrapped the bundled layers, hundreds of treasures were revealed, including gold nose rings and necklaces, sparkling crowns, and huge war clubs usually reserved for the Moche's greatest warriors. But when archaeologists lifted a gold bowl covering the mummy's face, they found the biggest surprise yet. The mummy wasn't a king or a male warrior; it was a young Moche woman—and she was covered in mysterious tattoos!

**The Moche Way** Until now research had shown that only men ruled Moche society—a warrior culture in which prisoners were captured in battle and sacrificed in bloody rituals atop this very pyramid. Where did this 20-something woman fit in? Was she a queen? A high priestess? A warrior princess? One thing's for sure: This Moche VIP would have received star treatment. When visiting her people, servants would have carried her high above the crowds on a litter, a special platform

reserved for only the most elite figures. Says anthropologist John Verano: "Her gold objects would have shimmered so brightly you could have seen them from miles away."

**Twenty Questions** Today this mystery woman is making headlines again. Her well-sealed tomb helped preserve hundreds of ancient artifacts—even her dresses and braided hair. "It's like going back in a time machine to A.D. 450 and seeing her just as she was," says Verano. But now the scientists have unearthed more questions than answers. What did the mummy's elaborate tattoos mean? With drawings of snakes, spiders, crabs, and imaginary animals crawling along her arms, legs, and feet, she has more body art than any known Moche mummy. No one knows for sure what these creatures mean, but the Moche may have believed the animals would bring healthy harvests.

And why was the mummy buried with 23 spear throwers? Even the most powerful male leaders were buried with only one or two. Did her bodyguards leave the weapons to protect her in the afterlife? Most important, why did this adored woman die at such a young age? The skeleton showed no sign of disease or injury. Some experts think she may have died while giving birth, but researchers are still uncertain.

**Tomb Be Continued** Whoever this woman was, it's clear from her elaborate burial that she was a star among her people. And now the ancient heroine's tomb is helping experts re-create her life and the world of the Moche people.

#### 11. Text: Happy Leap Day!

Source: <a href="http://www.timeforkids.com/news/happy-leap-day/31131">http://www.timeforkids.com/news/happy-leap-day/31131</a>

Genre: Article

Topic: Calendar/Seasons

Theme: Leap Year

Lexile: 920

Text Complexity: Less Complex

Word Count: 467

#### Happy Leap Day!

February 29 only happens every four years. Why?

February 29, 2012



JAMES BALOG—GETTY IMAGES

Take a leap! We celebrate leap day on February 29.

Imagine raking leaves on Christmas, or shoveling snow on Memorial Day. What about going for a swim on Thanksgiving?

Without Leap Day, which takes place every four years, that could happen. "If we didn't have leap years, our calendar would be totally scrambled," says Geoff Chester of the U.S. Naval Observatory in Washington, D.C., the nation's official timekeepers.

#### Why Leap Day?

Our calendar is normally 365 days long. It was created to match the cycles of the seasons. But Roman Dictator Julius Caesar (See-zer) noticed a problem: The Earth doesn't circle the sun in exactly 365 days. It actually takes 365 and one-quarter days. He figured out that the extra fraction of a day would cause the calendar to grow apart from the seasons over time. Over 100 years, the seasons would shift about 24 days. Spring would start on April 13 instead of March 20.

Caesar used math to figure out a way to stop the calendar from shifting. He decided to add an extra day to the month of February every four years. His idea helped keep the seasons and calendar matched up. Even so, it still wasn't perfect -- his calendar was adding too many days.

In 1582, Pope Gregory XIII worked on Caesar's idea. His calendar, called the Gregorian calendar, dictates that every year that is evenly divided by 400 is a leap year. Turn-of-the-century years, or years ending in "00," would not be leap years unless they could be divided evenly by 400. These complicated equations help keep the calendar in balance with the orbit of the Earth. Today, we still use the Gregorian calendar. In about 3,000 years, the calendar will be only one day out of step with the seasons. It's still not perfect, but mathematicians decided it was as close as we could get.

#### A Complicated Birthday

So what happens when someone is born on Leap Day? Do these Pisces celebrate their birthday each year, or do they instead have to wait four years to age? Statistics show that on non-leap-years, about 80 percent still celebrate their birthdays in February, rather than on March 1. Birth certificates and most government agencies use February 29 for people who were born on Leap Day, but some states use March 1 for official purposes.

How rare is a Leap Day birthday? The chance of someone being born on a Leap Day is 1 out of 1,461, or less than 1%. The Honor Society of Leap Year Day Babies says about 5 million people in the world share a February 29 birthday. Happy birthday to them! How will you celebrate Leap Day?

#### 12. Borrower Beware

Source: http://articles.chicagotribune.com/2002-09-24/features/0209280306 1 plagiarism-copied-student

Genre: Article

Topic: Plagiarism in Research

Theme: Plagiarism

Lexile: 940

Text Complexity: Less Complex

Word Count: 890

#### **Borrower beware**

#### Think copying from the Internet is an easy way out? Think again . . .

September 24, 2002|By Emilie Ostrander. Special to the Tribune.

Librarian Jane Prestebak was suspicious a student had copied an assignment off the Internet. "He said he had spacing problems and couldn't get the margins to an inch," says Prestebak.

Curious, Prestebak typed the first five words of the paper into the search engine Google. Within seconds, she knew whether the student was cheating: "I found two papers that matched his," she says.

Copying information off the Internet and claiming it as original is considered plagiarism. Whether it's copying a full paper from one source or copying different paragraphs from different sources, teachers think plagiarism is serious cheating. And teachers who catch students cheating can do more than just give the assignment a failing grade. At some schools, students may be barred from afterschool activities or even suspended.

Adina K., 15, of Skokie attends a school that charges students with academic dishonesty if caught plagiarizing. "They put it in your behavioral record and colleges could request to see it," she says.

Even though Adina knows her school has a strict policy against plagiarism, it hasn't stopped her from copying from the Internet. "I just do it for science papers, not

English papers," she says. "Science papers are all fact and it's not like you can change it around. But English papers are about your opinion."

A classmate of Adina's, Mary I., 15, of Skokie says teachers don't notice small doses of plagiarism. Mary says she often copies different paragraphs she finds online and adds them to her own work. "I don't turn in a fully copied paper," she says. "Just a few sentences."

Jennie L., 13, of Oak Park isn't interested in borrowed work and says she worries that plagiarizing an assignment now could lead to trouble later. "You'll never understand the material and there are concepts you need to learn," she says. "Besides, you can't cheat on the SATs!"

Most students don't think teachers will realize their paper was copied. "Because the Internet is so big, students don't think teachers can catch them," says Prestebak.

But copiers beware, new Internet databases for teachers help track plagiarized papers. For a small fee, teachers can check to see if an assignment is an original or a copy.

Prestebak says it's not hard for a teacher to tell whether a student has cheated. Plagiarized papers often are written above a student's ability. And since teachers know a student's style of writing, a copied paper can really stand out.

Even without an Internet search, Prestebak says she can determine whether a student copied. "Visiting with the student will reveal whether he or she plagiarized," she says. "If they really don't know the topic and the assignment, it's obvious."

Plagiarizing a paper from the Internet may seem like an easy solution for stressed students. But Prestebak warns that the methods students use to find free papers are the same ones used by teachers to check for cheaters: "It's just as easy for teachers to find papers [online] as it is for students."

Ways to ensure your papers are your own

Plagiarism is using someone else's ideas and claiming them as your own--whether it's copying off the Internet, straight from a book or recycling your older brother's term paper. If students don't include sources, teachers can assume the student is claiming a fact as his or her own information. Here are a few ways to avoid plagiarism and the troubles of cheating:

- Don't turn in anyone else's work.
- Credit your sources. "Even if it seems like general knowledge," says Prestebak.
- Don't make up sources or purposely misquote a source. It's considered cheating.

- Use quotes. Quoting a source lets a teacher know you're not claiming the statement as your own. It also adds credibility to your assignment.
- Don't reword. Rewording a paper is still considered cheating. Instead, take notes from sources and write based on your notes, not the paper.
- -- Emilie Ostrander

How to make your assignments plagiarism proof

Allowing someone to copy your work can land both you and the copier in big trouble. Teachers consider copying and sharing assignments to be plagiarism. Here are a few ways you nicely can tell friends they can't copy off you:

Be direct: Explain to your friend that plagiarism is serious trouble. You could both get zeros or suspensions.

Offer to help: Maybe your friend is having trouble with the subject, so while she can't cheat off your paper, you can help her with the next assignment. "Just say 'I can help you next time, but I'm not going to let you see it this time,' " says Jennie L.

Pass the blame: Each school has a different policy on plagiarism. While some schools will give zero credit for the assignment, others may suspend a plagiarist from sports or school activities. Pass the blame--you didn't make up the rules.

Use humor: A light-hearted response can help ease the tension. Your friend is "probably mad they don't have their assignment done," says Jennie. To lighten the mood, say you just adopted a family of gnomes to proofread all your assignments. If you let someone copy, the gnomes will be grumpy. Can't make them angry, right?

#### 13. Vincent Van Gogh: Portrait of an Artist

Source: <a href="http://www.corestandards.org/assets/Appendix B.pdf">http://www.corestandards.org/assets/Appendix B.pdf</a>

Genre: Biography

Topic: Vincent Van Gogh

Theme: Life's Experiences Influence Art

Lexile: 1330

Placement: Less Complex

Word Count: 348

Greenberg, Jan, and Sandra Jordan. Vincent Van Gogh: Portrait of an Artist. New York: Random House, 2001. (2001) From Chapter 1: "A Brabant Boy 1853-75"

I have nature and art and poetry, if that is not enough what is?—Letter to Theo, January 1874

On March 30, 1853, the handsome, soberly dressed Reverend Theodorus van Gogh entered the ancient town hall of Groot-Zundert, in the Brabant, a province of the Netherlands. He opened the birth register to number twenty-nine, where exactly one year earlier he had sadly written "Vincent Willem van Gogh, stillborn." Beside the inscription he wrote again "Vincent Willem van Gogh," the name of his new, healthy son, who was sleeping soundly next to his mother in the tiny parsonage across the square. The baby's arrival was an answered prayer for the still-grieving family.

The first Vincent lay buried in a tiny grave by the door of the church where Pastor van Gogh preached. The Vincent who lived grew to be a sturdy redheaded boy. Every Sunday on his way to church, young Vincent would pass the headstone carved with the name he shared. Did he feel as if his dead brother where the rightful Vincent, the one who would remain perfect in his parents' hearts, and that he was merely an unsatisfactory replacement? That might have been one of the reasons he spent so much of his life feeling like a lonely outsider, as if he didn't fit anywhere in the world.

Despite his dramatic beginning, Vincent had an ordinary childhood, giving no hint of the painter he would become. The small parsonage, with an upstairs just two windows wide under a slanting roof, quickly grew crowded. By the time he was six

he had two sisters, Anna and Elizabeth, and one brother, Theo, whose gentle nature made him their mother's favorite.

#### Media Text

The Van Gogh Gallery, a commercial Web resource with links to Van Gogh's art and information about his life: <a href="http://www.vangoghgallery.com/">http://www.vangoghgallery.com/</a>

#### 14. "Letter on Thomas Jefferson." Adams on Adams

Source: <a href="http://www.corestandards.org/assets/Appendix B.pdf">http://www.corestandards.org/assets/Appendix B.pdf</a>

Genre: Letter

Topic: Jefferson's Attributes

Theme: Personal Qualities Affect Ability

Lexile: 1160

Placement: Less Complex

Word Count: 339

Adams, John. "Letter on Thomas Jefferson." Adams on Adams. Edited by Paul M. Zall.

Lexington: University Press of Kentucky, 2004. (1776) From Chapter 6: "Declaring Independence 1775–1776"

Mr. Jefferson came into Congress, in June, 1775, and brought with him a reputation for literature, science, science, and a happy talent of composition. Writings of his were handed about, remarkable for the peculiar felicity of expression. Though a silent member in Congress, he was so prompt, frank, explicit, and decisive upon committees and in conversation, not even Samuel Adams was more so, that he soon seized upon my heart; and upon this occasion I gave him my vote, and did all in my power to procure the votes of others. I think he had one more vote than any other, and that placed him at the head of the committee. I had the next highest number, and that placed me second. The committee met, discussed the subject, and then appointed Mr. Jefferson and me to make the draught, I suppose because we were the two first on the list.

The subcommittee met. Jefferson proposed to me to make the draft. I said, 'I will not.'

'You should do it.'

'Oh! no.'

'Why will you not? You ought to do it.'

'I will not.'

'Why?'

'Reasons enough.'

'What can be your reasons?'

'Reason first, you are a Virginian, and a Virginian ought to appear at the head of this business. Reason second, I am

obnoxious, suspected, and unpopular. You are very much otherwise. Reason third, you can write ten times better than

I can.'

'Well,' said Jefferson, 'if you are decided, I will do as well as I can.'

'Very well. When you have drawn it up, we will have a meeting.'

#### Media Text

Adams Family Papers: An Electronic Archive, hosted by the Massachusetts Historical Society, includes transcriptions of letters between John and Abigail Adams as well as John Adams's diary and autobiography:

http://www.masshist.org/digitaladams/aea/index.html

#### 15. Freedom Walkers: The Story of the Montgomery Bus Boycott

Source: http://www.corestandards.org/assets/Appendix B.pdf

Genre: Informational

Topic: Racial Segregation

Theme: Racial Segregation

Lexile: 1250

Placement: Less Complex

Word Count: 344

Freedman, Russell. Freedom Walkers: The Story of the Montgomery Bus Boycott. New York: Holiday House, 2006. (2006) From the Introduction: "Why They Walked"

Not so long ago in Montgomery, Alabama, the color of your skin determined where you could sit on a public bus. If you happened to be an African American, you had to sit in the back of the bus, even if there were empty seats up front.

Back then, racial segregation was the rule throughout the American South. Strict laws—called "Jim Crow" laws—enforced a system of white supremacy that discriminated against blacks and kept them in their place as second-class citizens.

People were separated by race from the moment they were born in segregated hospitals until the day they were buried in segregated cemeteries. Blacks and whites did not attend the same schools, worship in the same churches, eat in the same restaurants, sleep in the same hotels, drink from the same water fountains, or sit together in the same movie theaters.

In Montgomery, it was against the law for a white person and a Negro to play checkers on public property or ride together in a taxi.

Most southern blacks were denied their right to vote. The biggest obstacle was the poll tax, a special tax that was required of all voters but was too costly for many blacks and for poor whites as well. Voters also had to pass a literacy test to prove that they could read, write, and understand the U.S. Constitution. These tests were often rigged to disqualify even highly educated blacks. Those who overcame the obstacles and insisted on registering as voters faced threats, harassment. And even physical violence. As a result, African Americans in the South could not express their grievances in the voting booth, which for the most part, was closed to them. But there were other ways to protestand one day a half century ago, the black citizens in

Montgomery rose up in protest and united to demand their rights—by walking peacefully. It all started on a bus

#### 16. Geeks: How Two Lost Boys Rode the Internet out of Idaho

Source: <a href="http://www.corestandards.org/assets/Appendix B.pdf">http://www.corestandards.org/assets/Appendix B.pdf</a>

Genre: Informational Essay

Topic: Technology

Theme: Innovation

Lexile: 880

Placement: Less Complex

Word Count: 269

Katz, John. Geeks: How Two Lost Boys Rode the Internet out of Idaho. New York: Broadway Books, 2001. (2001)

Jesse and Eric lived in a cave-an airless two-bedroom apartment in a dank stuccoand-brick complex on the outskirts of Caldwell. Two doors down, chickens paraded around the street.

The apartment itself was dominated by two computers that sat across from the front door like twin shrines. Everything else-the piles of dirty laundry, the opened Doritos bags, the empty cans of generic soda pop, two ratty old chairs, and a moldering beanbag chair-was dispensable, an afterthought, props.

Jesse's computer was a Pentium 11 300, Asus P2B (Intel BX chipset) motherboard; a Matrix Milleniurn II AGP; 160 MB SDRAM with a 15.5 GB total hard-drive space; a 4X CD-recorder; 24X CD-ROM; a 17-inch Micron monitor. Plus a scanner and printer. A well-thumbed paperback-Katherine Dunn's novel Geek Love-served as his mousepad.

Eric's computer: an AMD K-6 233 with a generic motherboard; an S3 video card, a 15-inch monitor; a 2.5 GB hard drive with 36 MB SDRAM. Jesse wangled the parts for both from work.

They stashed their bikes and then Jesse blasted in through the door, which was always left open since he can never hang on to keys, and went right to his PC, which was always on. He yelled a question to Eric about the new operating system. "We change them like cartons of milk," he explained. At the moment, he had NT 5, NT 4, Work Station, Windows 98, and he and Eric had begun fooling around with Linux, the complex, open-source software system rapidly spreading across the world.

#### 17. Elementary Particles

Source: New Book of Popular Science. New York: Scholastic, 2010. (2010)

Lexile: 1050

Genre: Article

Topic: Matter

Theme: Subatomic Particles

Placement: Less Complex

Word Count: 254

#### **Elementary Particles**

Since ancient times, people have tried to discover the basic units of matter. What, they have asked, are the smallest particles from which all the objects in the universe are made?

Many people in ancient Greece thought that all matter was made of various combinations of four basic "elements"— earth, fire, air, and water. But one Greek philosopher, Democritus (c.460–c.370 B.C.), had a different theory. He suggested that matter was composed of tiny particles called atoms. The word "atom" comes from a Greek word meaning "unable to be cut" or "indivisible."

The theory of Democritus was largely ignored for 2,000 years. Then, in 1802, an English chemist and physicist named John Dalton (1766–1844) revived the atomic theory. He was the first scientist to define the atom as it is understood today—the smallest particle of an element that behaves chemically like that element.

Atomic physics is the study of atoms and their behavior. Atoms are incredibly small. A tiny speck of dust contains many millions of atoms. Some molecules, such as certain of the protein molecules, contain hundreds of thousands of atoms. Yet a protein molecule is so small, compared with things we can see with the unaided eye, that a powerful electron microscope is needed to view it. Even then, the individual atoms cannot usually be seen.

Small as the atom is, however, it is not the smallest component of matter. Particle physics is the study of the smallest, most elemental building blocks and the basic forces of nature.

#### 18. Wildfire Safety Tips

Source: <a href="http://environment.nationalgeographic.com/environment/natural-disasters/wildfire-safety-tips/">http://environment.nationalgeographic.com/environment/natural-disasters/wildfire-safety-tips/</a>

Genre: Informational

**Topic: Wildfires** 

Theme: Safety

Lexile: 1110

Placement: Less Complex

Word Count: 387

#### Wildfire Safety Tips

Unlike many natural disasters, most wildfires are caused by people—and can be prevented by people, too. Meteorologists are not yet able to forecast wildfire outbreaks, so people in fire-prone areas should plan ahead and prepare to evacuate with little notice. Here are some tips on how to prevent wildfires and what to do if you're caught in the middle of one.

#### How to Prevent a Wildfire

- Contact 911, your local fire department, or the park service if you notice an unattended or out-of-control fire.
- Never leave a campfire unattended. Completely extinguish the fire—by dousing it with water and stirring the ashes until cold—before sleeping or leaving the campsite.
- When camping, take care when using and fueling lanterns, stoves, and heaters. Make sure lighting and heating devices are cool before refueling. Avoid spilling flammable liquids and store fuel away from appliances.
- Do not discard cigarettes, matches, and smoking materials from moving vehicles, or anywhere on park grounds. Be certain to completely extinguish cigarettes before disposing of them.

• Follow local ordinances when burning yard waste. Avoid backyard burning in windy conditions, and keep a shovel, water, and fire retardant nearby to keep fires in check. Remove all flammables from yard when burning.

#### **Evacuation Tips**

- If advised to evacuate, do so immediately.
- Know your evacuation route ahead of time and prepare an evacuation checklist and emergency supplies.
- Wear protective clothing and footwear to protect yourself from flying sparks and ashes.

#### Before You Leave, Prepare Your House

- Remove combustibles, including firewood, yard waste, barbecue grills, and fuel cans, from your yard.
- Close all windows, vents, and doors to prevent a draft.
- Shut off natural gas, propane, or fuel oil supplies.
- Fill any large vessels—pools, hot tubs, garbage cans, or tubs—with water to slow or discourage fire.

#### If Caught in a Wildfire

- Don't try to outrun the blaze. Instead, look for a body of water such as a pond or river to crouch in.
- If there is no water nearby, find a depressed, cleared area with little vegetation, lie low to the ground, and cover your body with wet clothing, a blanket, or soil. Stay low and covered until the fire passes.
- Protect your lungs by breathing air closest to the ground, through a moist cloth, if possible, to avoid inhaling smoke.

#### 19. Wildfires

Source: <a href="http://environment.nationalgeographic.com/environment/natural-disasters/wildfires/">http://environment.nationalgeographic.com/environment/natural-disasters/wildfires/</a>

Genre: Informational Essay

**Topic: Wildfires** 

Theme: General Information

Lexile: 1250

Placement: Less Complex

Word Count: 501

Wildfires

Uncontrolled blazes fueled by weather, wind, and dry underbrush, wildfires can burn acres of land—and consume everything in their paths—in mere minutes.

On average, more than 100,000 wildfires, also called wildland fires or forest fires, clear 4 million to 5 million acres (1.6 million to 2 million hectares) of land in the U.S. every year. In recent years, wildfires have burned up to 9 million acres (3.6 million hectares) of land. A wildfire moves at speeds of up to 14 miles an hour (23 kilometers an hour), consuming everything—trees, brush, homes, even humans—in its path.

There are three conditions that need to be present in order for a wildfire to burn, which firefighters refer to as the fire triangle: fuel, oxygen, and a heat source. Fuel is any flammable material surrounding a fire, including trees, grasses, brush, even homes. The greater an area's fuel load, the more intense the fire. Air supplies the oxygen a fire needs to burn. Heat sources help spark the wildfire and bring fuel to temperatures hot enough to ignite. Lightning, burning campfires or cigarettes, hot winds, and even the sun can all provide sufficient heat to spark a wildfire.

Although four out of five wildfires are started by people, nature is usually more than happy to help fan the flames. Dry weather and drought convert green vegetation into bone-dry, flammable fuel; strong winds spread fire quickly over land; and warm temperatures encourage combustion. When these factors come together all that's needed is a spark—in the form of lightning, arson, a downed power line, or a burning campfire or cigarette—to ignite a blaze that could last for weeks and consume tens of thousands of acres.

These violent infernos occur around the world and in most of the 50 states, but they are most common in the U.S. West, where heat, drought, and frequent thunderstorms create perfect wildfire conditions. Montana, Idaho, Wyoming, Washington, Colorado, Oregon, and California experience some of the worst conflagrations in the U.S. In California wildfires are often made worse by the hot, dry Santa Ana winds, which can carry a spark for miles.

Firefighters fight wildfires by depriving them of one or more of the fire triangle fundamentals. Traditional methods include water dousing and spraying fire retardants to extinguish existing fires. Clearing vegetation to create firebreaks starves a fire of fuel and can help slow or contain it. Firefighters also fight wildfires by deliberately starting fires in a process called controlled burning. These prescribed fires remove undergrowth, brush, and ground litter from a forest, depriving a wildfire of fuel.

Although often harmful and destructive to humans, naturally occurring wildfires play an integral role in nature. They return nutrients to the soil by burning dead or decaying matter. They also act as a disinfectant, removing disease-ridden plants and harmful insects from a forest ecosystem. And by burning through thick canopies and brushy undergrowth, wildfires allow sunlight to reach the forest floor, enabling a new generation of seedlings to grow.

#### 20. Geeks: "Geology"

Source: http://www.corestandards.org/assets/Appendix B.pdf

Genre: Informational Essay

Topic: Geology

Theme: Geology Divisions

Lexile: 1170

Placement: Less Complex

Word Count: 327

"Geology." U\*X\*L Encyclopedia of Science. Edited by Rob Nagel. Farmington Hills, Mich.: Gale Cengage Learning, 2007. (2007)

Geology is the scientific study of Earth. Geologists study the planet—its formation, its internal structure, its materials, its chemical and physical processes, and its history. Mountains, valleys, plains, sea floors, minerals, rocks, fossils, and the processes that create and destroy each of these are all the domain of the geologist. Geology is divided into two broad categories of study: physical geology and historical geology.

Physical geology is concerned with the processes occurring on or below the surface of Earth and the materials on which they operate. These processes include volcanic eruptions, landslides, earthquakes, and floods. Materials include rocks, air, seawater, soils, and sediment. Physical geology further divides into more specific branches, each of which deals with its own part of Earth's materials, landforms, and processes. Mineralogy and petrology investigate the composition and origin of minerals and rocks. Volcanologists study lava, rocks, and gases on live, dormant, and extinct volcanoes. Seismologists use instruments to monitor and predict earthquakes and volcanic eruptions.

Historical geology is concerned with the chronology of events, both physical and biological, that have taken place in Earth's history. Paleontologists study fossils (remains of ancient life) for evidence of the evolution of life on Earth. Fossils not only relate evolution, but also speak of the environment in which the organism lived. Corals in rocks at the top of the Grand Canyon in Arizona, for example, show a shallow sea flooded the area around 290 million years ago.

In addition, by determining the ages and types of rocks around the world, geologists piece together continental and oceanic history over the past few billion years. Plate tectonics (the study of the movement of the sections of Earth's crust) adds to Earth's story with details of the changing configuration of the continents and oceans.

From UXL ENCY SKI V10, 2E.  $\textcircled{\text{}}$  Gale, a part of Cengage Learning, Inc. Reproduced by permission.

#### 21. Cool Job: Firefighter Takes the Heat

Source:

Genre: Informational

Topic: Firefighter

Theme: Employment

Lexile: 1150

Placement: Less Complex

Word Count: 626

Cool Job: Firefighter Takes the Heat

On Saturday nights, A.J. Coston doesn't get a lot of sleep. Usually three or four times a night, a loud bell rings, a red light goes off, and he has to jump out of his bed. That's because he's a weekend volunteer firefighter with Loudoun County Fire and Rescue Station 13 in Northern Virginia. During the week, he lives at home with his mom, dad, and sister, and does his main job: going to high school. Coston, a junior captain and firefighter, is 18 years old.

"I always wanted to get into firefighting since I was a little kid watching fire trucks go by," he says. "One day I was bored and on the Internet, and I found out that Loudoun County offered a junior firefighter program." He was only 16, but he was hooked.

A hard-working student, he managed to go to high school, do his homework, and fit in 160 hours of firefighting class on top of it all. He went to class from 7:00 to 10:30 two nights a week and all day Saturday for months.

Fighting fires is dangerous work. Firefighters never stop practicing the skills they need to stay safe. Once Coston learned those skills, he was allowed to work inside burning buildings. But not before grabbing all his gear. Coston says he wears firefighting boots (rubber or leather with a steel plate), turnout pants (fire pants), a turnout coat, a hood to protect his neck and head, a helmet, and an SCBA (Self-Contained Breathing Apparatus), which includes a mask, air bottle and pack, and gloves.

Coston says what you carry into a fire depends on what position you're riding. "You might take in a Halligan bar [Read about this on Wikipedia], an axe, a flashlight that can shine through smoke, a thermal imager which can show images through smoke,

a water can, or a pike pole (used to pull ceilings down and check to see if the fire has gone into a crawl space)."

"Teamwork is huge," he says. "It's the whole team that puts the fire out, from the guy pulling the hose line to the guy holding the nozzle. The guy holding the back end of the hose may never even see the fire he's putting out, but he makes sure the guy up front has enough hose to get there."

Coston is also a trained Emergency Medical Technician (EMT). A fire company doesn't just get called to put fires out. They respond to 911 calls about everything from accidents to heart attacks.

Firefighters feel great about helping people. "My most dramatic call was probably the time four kids were struck by lightning," says Coston. "We had one kid in cardiac arrest [that means his heart stopped], and we did CPR [cardiopulmonary resuscitation] and got a heartbeat back. He's pretty much fine now!"

Coston will be off to college next fall, building on his dream job. "I'll get my degree in emergency medical care, and then apply to a fire and rescue company for a while. I want to be a flight medic on a helicopter eventually," he says.

Remember, call 911 if you smell smoke or see a fire. Fast Facts:

Not all fire trucks carry water

A truck company carries a long ladder to reach high-up places A rescue company has a big tool box with almost every tool you can think of

Not all fire trucks are red

Not all fire stations have dogs

Many firefighters have a college degree in Fire Science

There are different kinds and sizes of fire hoses for different

situations

You can take a firefighting course as early as age 16

Some firefighters are also paramedics

Firefighters respond to more false alarms than fires

#### 22. The Number Devil: A Mathematical Adventure

Source: <a href="http://www.corestandards.org/assets/Appendix B.pdf">http://www.corestandards.org/assets/Appendix B.pdf</a>

Genre: How-To

Topic: Math

Theme: Mathematics

Lexile: 580

Placement: Less Complex

Word Count: 269

Manhattan on the Web: History, a Web portal hosted by the New York Public Library:

http://legacy.www.nypl.org/branch/manhattan/index2.cfm?Trg=1&d1=865

Enzensberger, Hans Magnus. The Number Devil: A Mathematical Adventure. Illustrated by Rotraut Susanne Berner. Translated by Michael Henry Heim. New York: Henry Holt, 1998. (1998) From "The First Night"

... "I see," said the number devil with a wry smile. "I have nothing against your Mr. Bockel, but that kind of problem has nothing whatever to do with what I'm interested in. Do you want to know something? Most genuine mathematicians are bad at sums. Besides, they have no time to waste on them. That's what pocket calculators are for. I assume you have one.

"Sure, but we're not allowed to use them in school."

"I see," said the number devil. "That's all right. There's nothing wrong with a little addition and subtraction. You never know when your battery will die on you. But mathematics, my boy, that's something else again!"...

... "The thing that makes numbers so devilish is precisely that they are simple. And you don't need a calculator to prove it. You need one thing and one thing only: one. With one—I am speaking of the numeral of course—you can do almost anything. If you are afraid of large numbers—let's say five million seven hundred and twenty-three thousand eight hundred and twelve—all you have to do is start with

1 + 1 1+1+1 1+1+1+1

1+1+1+1+1

... and go on until you come to five million etcetera. You can't tell me that's too complicated for you, can you?

# Part B-Middle Range

#### 1. Text: Ancient Olympic Events

Source: <a href="http://www.perseus.tufts.edu/olympics/sports/html">http://www.perseus.tufts.edu/olympics/sports/html</a>

Genre: Informational Text

**Topic: Ancient Olympics** 

Theme: Olympic Events

Lexile: 1300

Placement: Middle Range

Word Count: 664 According to the Atlanta Olympics organizers, 10,700 athletes from 197 countries will compete at the 1996 Summer Games, and over 2 million people will go to Atlanta to see them. The number of people who will tune in to any part of the TV coverage is predicted to reach 3.5 billion. With such a large audience, the biggest international event in the world is a natural arena for controversies.

The ancient Olympic Games, part of a major religious festival honoring Zeus, the chief Greek god, were the biggest event in their world. They were the scene of political rivalries between people from different parts of the Greek world, and the site of controversies, boasts, public announcements and humiliations. In this section you can explore the context of the Olympics and read stories about the participants and spectators who came to Olympia from all over the Greek world.

Today, the Olympic Games are the world's largest pageant of athletic skill and competitive spirit. They are also displays of nationalism, commerce and politics. These two opposing elements of the Olympics are not a modern invention. The conflict between the Olympic movement's high ideals and the commercialism or political acts which accompany the Games has been noted since ancient times.

One difference between the ancient and modern Olympic Games is that the ancient games were played within the context of a religious festival. The Games were held in honor of Zeus, the king of the Greek gods, and a sacrifice of 100 oxen was made to the god on the middle day of the festival. Athletes prayed to the gods for victory, and made gifts of animals, produce, or small cakes, in thanks for their successes. According to legend, the altar of Zeus stood on a spot struck by a thunderbolt, which had been hurled by the god from his throne high atop Mount Olympus, where the gods assembled. Some coins from Elis had a thunderbolt design on the reverse, in honor of this legend.

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## Perseus Digital Library Project. Ed. Gregory R. Crane. *Ancient Olympic Events*. Tufts University. http://www.perseus.tufts.edu

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#### 2. Text: Mandela Calls for Steps to End Poverty

Source: <a href="http://www.ebscohost.com/us-middle-schools">http://www.ebscohost.com/us-middle-schools</a>

Genre: News Article

Topic: Mandela's speech on poverty

Theme: Poverty

Lexile: 1160

Placement: Middle Range

Word Count: 314

Cunningham, Jennifer. "Mandela Calls for Steps to End Poverty." Feb. 17, 2005. Pg. 2.

http://www.ebscohost.com/us-middle-schools

### Mandela calls for steps to end poverty.

Dateline: LONDON —

New York Amsterdam News; 2/17/2005, Vol. 96 Issue 8, p2-2, 1/3p

Addressing a crowd of over 20,000 in London's Trafalgar Square last Thursday, Nelson

Mandela called upon the 7 richest countries in the world to increase their aid to

nations, cancel debts, and deliver trade justice.

Looking frail in a black fur hat and a matching wool coat and cane, the 87-year-old former South African president called poverty and inequality "the greatest scourge of

our time."

Mandela said that eradicating poverty would not be easy, but ignoring the problem would be a crime against humanity.

"Do not look the other way," he said. "Recognize that the world is hungry for action, not

words. Overcoming poverty is not a gesture of charity; it is the protection of fundamental human rights."

The event was sponsored by the Make Poverty History Campaign, an international coalition of charities, trade unions, faith-based groups and high-profile individuals who

want to see global poverty eradicated in 2005.

Oxfam charity President Adrian Lovett, a member of the Make Poverty History Campaign, said that Mandela's "presence is not only a rallying cry to the public to get

involved, but serves notice to rich countries that the world will not put up with false promises, delays and hollow sound bites."

Mandela's speech had an effect on the audience as well. Some were reduced to tears at

the very sight of the man who spent 27 years in a South Africa prison.

"Seeing Mandela's fragility, combined with his continued resolve to fight social injustice,

was extremely inspiring," said Amanda Janis, a tourist visiting from California. "I saw a true African leader today," said Musa Aliyu, a Nigerian who was also in attendance. "We know our problem is not accidental. It's the West's fault. The West connived to make Africa what it is today."

By Jennifer Cunningham

#### 3. Text: Japan tsunami debris floating toward Hawaii

Source: http://www.usatoday.com/news/nation/environment/story/2011-10-25/japan-tsunami-debris-hawaii-usa/50914576/1

Genre: News Article

Topic: tsunami

Theme: Preparing for aftermath

Lexile: 1380

Placement: Middle Range

Word Count: 506

USA Today. "Japan tsunami debris floating toward Hawaii." Oct. 25, 2011. <a href="http://www.usatoday.com/news/nation/environment/story/2011-10-25/japan-tsunami-debris-hawaii-usa/50914576/1">http://www.usatoday.com/news/nation/environment/story/2011-10-25/japan-tsunami-debris-hawaii-usa/50914576/1</a>.

HONOLULU (AP) – Up to 20 million tons of tsunami debris floating from Japan could arrive on Hawaii's shores by early 2013, before reaching the <u>West Coast</u>, according to estimates by <u>University of Hawaii</u> scientists.

A Russian training ship spotted the junk — including a refrigerator, a television set and other appliances — in an area of the <u>Pacific Ocean</u> where the scientists from the university's International Pacific Research Center predicted it would be. The biggest proof that the debris is from the Japanese tsunami is a fishing boat that's been traced to the Fukushima Prefecture, the area hardest hit by the March 11 disaster. Jan Hafner, a scientific computer programmer, told the Associated Press on Tuesday that researchers' projections show the debris would reach the coasts of Oregon, Washington, Alaska and Canada around 2014.

They estimate the debris field is spread out across an area that's roughly 2,000 miles long and 1,000 miles wide located between Japan and Midway Atoll, where pieces could wash up in January. Just how much has already sunk and what portion is still floating is unknown.

"It's a common misconception it's like one mat that you could walk on," he said.

Hafner and the principal researcher in the project, oceanographer Nikolai Maximenko, have been researching surface ocean currents since 2009.

When the Japan earthquake and tsunamis struck, they applied their research to the rubble sucked into the Pacific Ocean from Japan. They used computer models to track its path, but until the Russian ship STS Pallada sailing from Honolulu contacted them last month, they had no direct observation of the massive debris field.

"From a scientific point of view, it was confirmation that our research was doing something right," Hafner said. "It was big news for us. But it was mixed feelings because you can't be excited about something as tragic as a tsunami."

The magnitude-9.0 earthquake produced the sort of devastation Japan hadn't seen since <u>World War II</u>, leaving more than 21,000 dead or injured. The tsunami that followed engulfed the northeast and wiped out entire towns.

The waves inundated the Fukushima plant, triggering the worst nuclear accident since Chernobyl. However, it's highly unlikely the tsunamigenerated debris would be contaminated with radioactive material, according to the National Oceanic and Atmospheric Administration's marine debris program. NOAA is also gathering information about debris sightings.

After news of the Russian ship's findings, the scientists have been receiving calls from media worldwide.

The scientists want boaters venturing in the area of the debris to send them details about what they see. Researchers want to know details such as GPS position, time, weather and descriptions of the items.

"We are trying to get across our message that it is coming and it's about time to start planning some action," Hafner said.

#### 4. Text: Lesson for Pacific NW: Tsunami death toll could have been worse

Source: <a href="http://www.kval.com/news/local/Lesson-for-Pacific-Northwest-Tsunami-death-toll-could-have-been-worse-141945403.html">http://www.kval.com/news/local/Lesson-for-Pacific-Northwest-Tsunami-death-toll-could-have-been-worse-141945403.html</a>

Genre: News Article

Topic: preparation

Theme: tsunami preparation (pacific NW)

Lexile: 1210

Placement: Middle Range

Word Count: 891

Floyd, Mark. "Lesson for Pacific NW: Tsunami death toll could have been worse." Mar. 8, 2012. <a href="http://www.kval.com/news/local/Lesson-for-Pacific-Northwest-Tsunami-death-toll-could-have-been-worse-141945403.html">http://www.kval.com/news/local/Lesson-for-Pacific-Northwest-Tsunami-death-toll-could-have-been-worse-141945403.html</a>.

## Lesson for Pacific NW: Tsunami death toll could have been worse

CORVALLIS, Ore. – An estimated 20,000 people died or are missing after <u>a massive</u> <u>earthquake-induced tsunami struck Japan on March 11, 2011</u>, yet some 200,000 people were in the inundation zone at the time.

The fact that 90 percent of the coastal region's residents and visitors evacuated effectively is a tribute to planning and community drills, said <u>Patrick Corcoran</u>, an Oregon State University education and outreach specialist, who just returned from a disaster symposium at United Nations University in Japan.

If the same magnitude earthquake and tsunami hits the Pacific Northwest, he said, the death toll will be much higher because of the lack of comparable preparation.

That 90 percent rate could be the number of victims, not survivors.

"Our human nature is <u>not tuned in to long-term threats and 300-year-cycle</u> <u>disasters</u>," Corcoran said. "It takes a big cultural shift to go from not thinking about an earthquake and tsunami to really and truly expecting one."

Although some Oregon communities have been proactive, most are so overwhelmed meeting immediate needs that tsunami preparedness is not a priority.

"The small size of Oregon coastal communities relative to the magnitude of the hazard also plays a role," Corcoran said. "Expecting these small communities to prepare for a level of safety for seasonal homeowners and visitors from throughout the state would be somewhat akin to Portland hosting the Olympic Games. They couldn't do it alone."

"To be fair, the Japanese have been dealing with this threat for hundreds of years and it has been on our minds for a decade or so," he added. "But we had better start taking the eventuality of an earthquake and tsunami a lot more seriously."

A Sea Grant Extension specialist, Corcoran has worked for several years with Oregon coastal communities on earthquake and tsunami preparedness, as well as resilience to major storms and other natural hazards. He recently toured several communities in Japan that had been ravaged by the tsunami, most of which had been completely destroyed below the tsunami inundation line.

"What was striking," Corcoran noted, "is how intact the homes and schools were just above that elevation. There was a clear line of safety. If you got above it, you were safe. If you didn't, you weren't. It wasn't that far for most people – you just had to know where the line was and get to it. And most of them did."

Japanese officials, in talking about rebuilding the village, are considering new approaches to development. Industrial, commercial and other non-residential buildings might be concentrated in the most vulnerable areas while homes, schools, hospitals and other crucial services would be located either out of the inundation zone or closer to high ground.

"That is the kind of planning the Pacific Northwest needs to consider," Corcoran said. "It isn't economically feasible to immediately shift our hospitals and nursing homes. But over a period of years or decades, when new facilities are being considered, preference might be given to sites at high elevations.

"A vast majority of the fatalities in Japan were among the elderly and a good portion of the others were family members and emergency personnel who went in after them when they realized they hadn't been evacuated. Traffic jams cost lives."

Corcoran said state and local agencies in Oregon have begun taking action, including producing new evacuation maps and improving communication and incident command plans.

"As good as our local emergency officials are, they will be overwhelmed by the sheer magnitude of the circumstances," Corcoran said. "Preparation must begin with the individual, then focus on mutual aid among neighbors, and finally on public aid and assistance. Businesses, too, must support the safety of their employees and customers."

There are several examples of coastal communities preparing for an earthquake and tsunami.

- <u>Cannon Beach</u> has commissioned <u>evacuation maps and inundation models</u>, hired a
  community preparedness coordinator, explored a <u>vertical evacuation structure</u>, and
  is looking into caching supplies at evacuation sites;
- The Seaside School District is studying relocating all of its schools on a common campus outside the inundation zone;
- OSU's <u>Hatfield Marine Science Center</u> in Newport has increased its educational efforts on earthquakes and tsunamis, and held evacuation drills for employees.

"The question," Corcoran said, "is whether we are preparing at a level commensurate with the risk."

Communities and individuals can prepare for natural disasters by understanding that they eventually will happen. Once you accept that, Corcoran said, preparation becomes second nature. Identify areas of high ground near your home, work and recreation areas. Work to make them accessible. Then conduct practice drills on how to get to them.

"Our society tends to be dismissive of drills," Corcoran said. "They are silly, they are embarrassing and it's usually raining. The only people who actually do drills are high schools and nursing homes because they are required to. But <u>drills save lives</u>, as they learned in Japan."

A final obstacle for West Coast residents to overcome, Corcoran said, is the feeling that technology will provide the answer.

"Oregon clearly needs to increase its standards for structural design and engineering for public buildings and infrastructure – and that long-term effort is under way," Corcoran said. "But we need to devote at least as much attention to educate and train locals and visitors on the basics of evacuation. We need to keep making progress on all fronts."

#### 5. Text: "Advice to Youth"

Author: Mark Twain

Source: http://people.virginia.edu/~jdk3t/TwainAY.htmGenre: speech

Genre: Satirical Essay

Topic: Appropriate Behavior

Theme: It is only necessary to behave properly when authority figures are present

Lexile: 1030

Placement: Middle Range

Word Count: 1248

"Advice to Youth" (1882)

Being told I would be expected to talk here, I inquired what sort of talk I ought to make. They said it should be something suitable to youth-something didactic, instructive, or something in the nature of good advice. Very well. I have a few things in my mind which I have often longed to say for the instruction of the young; for it is in one's tender early years that such things will best take root and be most enduring and most valuable. First, then. I will say to you my young friends -- and I say it beseechingly, urgently --

Always obey your parents, when they are present. This is the best policy in the long run, because if you don't, they will make you. Most parents think they know better than you do, and you can generally make more by humoring that superstition than you can by acting on your own better judgment.

Be respectful to your superiors, if you have any, also to strangers, and sometimes to others. If a person offend you, and you are in doubt as to whether it was intentional or not, do not resort to extreme measures; simply watch your chance and hit him with a brick. That will be sufficient. If you shall find that he had not intended any offense, come out frankly and confess yourself in the wrong when you struck him; acknowledge it like a man and say you didn't mean to. Yes, always avoid violence; in this age of charity and kindliness, the time has gone by for such things. Leave dynamite to the low and unrefined.

Go to bed early, get up early -- this is wise. Some authorities say get up with the sun; some say get up with one thing, others with another. But a lark is really the best thing to get up with. It gives you a splendid reputation with everybody to know that you get up with the lark; and if you get the right kind of lark, and work at him right, you can easily train him to get up at half past nine, every time -- it's no trick at all.

Now as to the matter of lying. You want to be very careful about lying; otherwise you are nearly sure to get caught. Once caught, you can never again be in the eyes to the good and the pure, what you were before. Many a young person has injured

himself permanently through a single clumsy and ill finished lie, the result of carelessness born of incomplete training. Some authorities hold that the young out not to lie at all. That of course, is putting it rather stronger than necessary; still while I cannot go quite so far as that, I do maintain, and I believe I am right, that the young ought to be temperate in the use of this great art until practice and experience shall give them that confidence, elegance, and precision which alone can make the accomplishment graceful and profitable. Patience, diligence, painstaking attention to detail -- these are requirements; these in time, will make the student perfect; upon these only, may he rely as the sure foundation for future eminence. Think what tedious years of study, thought, practice, experience, went to the equipment of that peerless old master who was able to impose upon the whole world the lofty and sounding maxim that "Truth is mighty and will prevail" -- the most majestic compound fracture of fact which any of woman born has yet achieved. For the history of our race, and each individual's experience, are sewn thick with evidences that a truth is not hard to kill, and that a lie well told is immortal. There is in Boston a monument of the man who discovered anesthesia; many people are aware, in these latter days, that that man didn't discover it at all, but stole the discovery from another man. Is this truth mighty, and will it prevail? Ah no, my hearers, the monument is made of hardy material, but the lie it tells will outlast it a million years. An awkward, feeble, leaky lie is a thing which you ought to make it your unceasing study to avoid; such a lie as that has no more real permanence than an average truth. Why, you might as well tell the truth at once and be done with it. A feeble, stupid, preposterous lie will not live two years -- except it be a slander upon somebody. It is indestructible, then of course, but that is no merit of yours. A final word: begin your practice of this gracious and beautiful art early -- begin now. If I had begun earlier. I could have learned how.

Never handle firearms carelessly. The sorrow and suffering that have been caused through the innocent but heedless handling of firearms by the young! Only four days ago, right in the next farm house to the one where I am spending the summer, a grandmother, old and gray and sweet, one of the loveliest spirits in the land, was sitting at her work, when her young grandson crept in and got down an old, battered, rusty gun which had not been touched for many years and was supposed not to be loaded, and pointed it at her, laughing and threatening to shoot. In her fright she ran screaming and pleading toward the door on the other side of the room; but as she passed him he placed the gun almost against her very breast and pulled the trigger! He had supposed it was not loaded. And he was right -- it wasn't. So there wasn't any harm done. It is the only case of that kind I ever heard of. Therefore, just the same, don't you meddle with old unloaded firearms; they are the most deadly and unerring hings that have ever been created by man. You don't have to take any pains at all with them; you don't have to have a rest, you don't have to have any sights on the gun, you don't have to take aim, even. No, you just pick out a relative and bang away, and you are sure to get him. A youth who can't hit a cathedral at thirty yards with a Gatling gun in three quarters of an hour, can take up an old empty musket and bag his grandmother every time, at a hundred. Think what Waterloo would have been if one of the armies had been boys armed with old muskets supposed not to be loaded, and the other army had been composed of their

female relations. The very thought of it make one shudder.

There are many sorts of books; but good ones are the sort for the young to read. remember that. They are a great, an inestimable, and unspeakable means of improvement. Therefore be careful in your selection, my young friends; be very careful; confine yourselves exclusively to Robertson's *Sermons*, Baxter's *Saints' Rest*, *The Innocents Abroad*, and works of that kind.

But I have said enough. I hope you will treasure up the instructions which I have given you, and make them a guide to your feet and a light to your understanding. Build your character thoughtfully and painstakingly upon these precepts, and by and by, when you have got it built, you will be surprised and gratified to see how nicely and sharply it resembles everybody else's.

#### 6. Text: "Blood, Toil, Tears and Sweat"

**Author: Winston Churchill** 

Source: <a href="http://www.historyplace.com/speeches/churchill.htm">http://www.historyplace.com/speeches/churchill.htm</a>

Genre: Speech

Topic: War

Theme: Victory at all costs

Lexile: 960

Placement: Middle Range

Word Count: 723

The leadership of Neville Chamberlain proved insufficient during the war, and in May 1940, Winston S. Churchill was appointed Prime Minister of an all-party government. Churchill proved to be an inspiring leader in the fight with Germany. On May 13, 1940he gave his first speech to the House of Commons, a speech which displays the oratorical skills which were so effective in keeping up public morale.

On Friday evening last I received from His Majesty the mission to form a new administration. It was the evident will of Parliament and the nation that this should be conceived on the broadest possible basis and that it should include all parties. I have already completed the most important part of this task. A war cabinet has been formed of five members, representing, with the Labour, Opposition, and Liberals, the unity of the nation. It was necessary that this should be done in one single day on account of the extreme urgency and rigor of events. Other key positions were filled yesterday. I am submitting a further list to the king tonight. I hope to complete the appointment of principal ministers during tomorrow. The appointment of other ministers usually takes a little longer. I trust when Parliament meets again this part of my task will be completed and that the administration will be complete in all respects. I considered it in the public interest to suggest to the Speaker that the House should be summoned today. At the end of today's proceedings, the adjournment of the House will be proposed until May 21 with provision for earlier meeting if need be. Business for that will be notified to MPs at the earliest opportunity. I now invite the House by a resolution to record its approval of the steps taken and declare its confidence in the new government. The resolution:

"That this House welcomes the formation of a government representing the united and inflexible resolve of the nation to prosecute the war with Germany to a victorious conclusion."

To form an administration of this scale and complexity is a serious undertaking in itself. But we are in the preliminary phase of one of the greatest battles in history.

We are in action at many other points-in Norway and in Holland-and we have to be prepared in the Mediterranean. The air battle is continuing, and many preparations have to be made here at home. In this crisis I think I may be pardoned if I do not address the House at any length today, and I hope that any of my friends and colleagues or former colleagues who are affected by the political reconstruction will make all allowances for any lack of ceremony with which it has been necessary to act. I say to the House as I said to ministers who have joined this government, I have nothing to offer but blood, toil, tears, and sweat. We have before us an ordeal of the most grievous kind. We have before us many, many months of struggle and suffering. You ask, what is our policy? I say it is to wage war by land, sea, and air. War with all our might and with all the strength God has given us, and to wage war against a monstrous tyranny never surpassed in the dark and lamentable catalogue of human crime. That is our policy. You ask, what is our aim? I can answer in one word. It is victory. Victory at all costs - Victory in spite of all terrors - Victory, however long and hard the road may be, for without victory there is no survival, Let that be realized. No survival for the British Empire, no survival for all that the British Empire has stood for, no survival for the urge, the impulse of the ages, that mankind shall move forward toward his goal. I take up my task in buoyancy and hope. I feel sure that our cause will not be suffered to fail among men. I feel entitled at this juncture, at this time, to claim the aid of all and to say, "Come then, let us go forward together with our united strength."

#### 7. Text: Disposable bottle ban sparks battle in Utah national parks

Author: John Hollenhorst

Source: ksl.com

Genre: News Article

Topic: Sale of Water Bottles in National Parks

Theme: Environmental Conservation

Lexile: 1190

Placement: Middle Range

Word count: 885

#### Disposable bottle ban sparks battle in Utah national parks

By John Hollenhorst

February 22nd, 2012

ARCHES NATIONAL PARK — A war over disposable water bottles in the national parks has moved back to Utah where it first began four years ago.

Zion National Park eliminated sales of the ubiquitous disposable bottles in 2008. A similar ban more than a year ago at Arizona's Grand Canyon National Park was temporarily derailed by controversy involving the Coca-Cola company.

Now, a feud has erupted over a proposed ban in southeastern Utah's Arches and Canyonlands National Parks.

Only sales of water bottles would be banned, not possession.

"I've not heard anyone even discuss a possible ban on bringing them in from outside the park," said Paul Henderson, assistant superintendent of the two parks.

#### Why the ban?

The new policy is intended to lessen the impact of park visitors on waste volume and landfill space. "Recycling, or changing our habits a little bit, goes a long way toward making us greener," Henderson said.

The proposal has run into flak from an unexpected direction. Park rangers and others say it could lead to safety issues because some visitors may not carry adequate water during hikes.

"When the landfill trumps visitor safety, we think the decision being made is not a good one," one source said after requesting anonymity.

As of March 1, it will no longer be possible to buy disposable water bottles at retail outlets within the boundaries of the two parks near Moab. The Canyonlands Natural History Association has agreed to voluntarily eliminate sales at three nonprofit stores the organization operates within the parks. Instead, visitors will be encouraged to buy refillable non-disposable containers.

According to Henderson, park managers hope to finalize a formal sales ban this spring, in accordance with guidance from National Park Service headquarters in Washington.

#### What park visitors think

Many park visitors can't seem to get by without the familiar disposable bottles.

"I don't have to buy something that I'm worried about losing," said Kathy Shaw of Austin, Texas. "And, I don't know, they're just convenient."

Shaw stopped at the Arches visitors center to refill her disposable bottle. "I've had this bottle for probably two years," she said. "I mean, it's the same bottle. I don't throw them away."

In that sense, she's doing what the park service wants: helping alleviate a crush of plastic waste that's been piling up in trash cans. About a year ago, managers at Arches and Canyonlands noticed that disposable bottles had become the biggest component of their solid waste volume.

Refilling of disposable bottles is apparently not the national norm. According to data prominently posted at the Arches visitor center, the average American throws away 167 plastic bottles each year, almost one every two days per person.

Henderson finds it ironic that Americans buy so much water, often at well over a dollar a bottle. "We complain all the time about the price of fuel," Henderson said, "and yet we spend more for a gallon of water than for a gallon of gas."

Park visitor Gloria Barber said there's been a cultural change. "I'm from a generation way back from this generation coming up," she said, "and they're from a disposable generation."

The nonprofit stores within the two parks will remove water-bottle vending machines at the end of February. They will also eliminate sales of alternative drinks such as Gatorade in disposable containers.

#### The basis of the battle

The decision is apparently unpopular with some rangers because of worries that visitors will go hiking on a hot day without water.

"Many people are afraid for their jobs if they protest this decision," the source who has close ties to the park service said. "Many of us do not support this and are concerned for the visitors' safety."

Henderson said safety issues are still under review but he downplayed the concern. "We went for a good number of years without vending machines," Henderson said. "We didn't have visitors falling over from lack of water. So it's a learned habit and we're hoping we can unlearn it."

Park managers are installing a new water refill station at the Arches visitors center. It will be supplied by a local well that's notable for poor-tasting water. The park service addressed that concern by installing a new filtration system.

Henderson denies reports that the water system has failed on several occasions, but the anonymous source disputes that. "They did run out of water," the source said. "And they ran out last year on multiple occasions. And I don't know if they corrected that for this year, but that's a real concern."

A different internal feud erupted when a disposable bottle ban was proposed at Grand Canyon National Park. Park service director Jon Jarvis put the ban on hold after consulting with Coca-Cola. The company markets bottled water under the Dasani brand but is also a major park supporter and contributor to the National Park Foundation.

A new policy unveiled in recent weeks allows individual park managers to propose such bans after collecting data and consulting with the national office.

#### 8. Text: "The Perils of Indifference"

Author: Eli Wiesle

Source: <a href="http://www.historyplace.com/speeches">http://www.historyplace.com/speeches</a>

Genre: Speech

Topic: Holocaust

Theme: Indifference

Lexile: 940

Placement: Middle Range

Word Count: 1844

#### "The Perils of Indifference"

Holocaust survivor, Elie Wiesel, gave this speech, at the White House on April 12, 1999, as part of the Millennium Lecture series.

Mr. President, Mrs. Clinton, members of Congress, Ambassador Holbrooke, Excellencies, friends: Fifty-four years ago to the day, a young Jewish boy from a small town in the Carpathian Mountains woke up, not far from Goethe's beloved Weimar, in a place of eternal infamy called Buchenwald. He was finally free, but there was no joy in his heart. He thought there never would be again.

Liberated a day earlier by American soldiers, he remembers their rage at what they saw. And even if he lives to be a very old man, he will always be grateful to them for that rage, and also for their compassion. Though he did not understand their language, their eyes told him what he needed to know -- that they, too, would remember, and bear witness.

And now, I stand before you, Mr. President -- Commander-in-Chief of the army that freed me, and tens of thousands of others -- and I am filled with a profound and abiding gratitude to the American people.

Gratitude is a word that I cherish. Gratitude is what defines the humanity of the human being. And I am grateful to you, Hillary -- or Mrs. Clinton -- for what you said, and for what you are doing for children in the world, for the homeless, for the victims of injustice, the victims of destiny and society. And I thank all of you for being here.

We are on the threshold of a new century, a new millennium. What will the legacy of this vanishing century be? How will it be remembered in the new millennium? Surely it will be judged, and judged severely, in both moral and metaphysical terms. These failures have cast a dark shadow over humanity: two World Wars, countless civil wars, the senseless chain of assassinations -- Gandhi, the Kennedys, Martin Luther King, Sadat, Rabin -- bloodbaths in Cambodia and Nigeria, India and Pakistan, Ireland and Rwanda, Eritrea and Ethiopia, Sarajevo and Kosovo; the inhumanity in the gulag and the tragedy of Hiroshima. And, on a different level, of course, Auschwitz and Treblinka. So much violence, so much indifference.

What is indifference? Etymologically, the word means "no difference." A strange and unnatural state in which the lines blur between light and darkness, dusk and dawn, crime and punishment, cruelty and compassion, good and evil.

What are its courses and inescapable consequences? Is it a philosophy? Is there a philosophy of indifference conceivable? Can one possibly view indifference as a virtue? Is it necessary at times to practice it simply to keep one's sanity, live normally, enjoy a fine meal and a glass of wine, as the world around us experiences harrowing upheavals?

Of course, indifference can be tempting -- more than that, seductive. It is so much easier to look away from victims. It is so much easier to avoid such rude interruptions to our work, our dreams, our hopes. It is, after all, awkward, troublesome, to be involved in another person's pain and despair. Yet, for the person who is indifferent, his or her neighbor are of no consequence. And, therefore, their lives are meaningless. Their hidden or even visible anguish is of no interest. Indifference reduces the other to an abstraction.

Over there, behind the black gates of Auschwitz, the most tragic of all prisoners were the "Muselmanner," as they were called. Wrapped in their torn blankets, they would sit or lie on the ground, staring vacantly into space, unaware of who or where they were, strangers to their surroundings. They no longer felt pain, hunger, thirst. They feared nothing. They felt nothing. They were dead and did not know it.

Rooted in our tradition, some of us felt that to be abandoned by humanity then was not the ultimate. We felt that to be abandoned by God was worse than to be punished by Him. Better an unjust God than an indifferent one. For us to be ignored by God was a harsher punishment than to be a victim of His anger. Man can live far from God -- not outside God. God is wherever we are. Even in suffering? Even in suffering.

In a way, to be indifferent to that suffering is what makes the human being inhuman. Indifference, after all, is more dangerous than anger and hatred. Anger can at times be creative. One writes a great poem, a great symphony, one does something special for the sake of humanity because one is angry at the injustice that one witnesses.

But indifference is never creative. Even hatred at times may elicit a response. You fight it. You denounce it. You disarm it. Indifference elicits no response. Indifference is not a response.

Indifference is not a beginning, it is an end. And, therefore, indifference is always the friend of the enemy, for it benefits the aggressor -- never his victim, whose pain is magnified when he or she feels forgotten. The political prisoner in his cell, the hungry children, the homeless refugees -- not to respond to their plight, not to relieve their solitude by offering them a spark of hope is to exile them from human memory. And in denying their humanity we betray our own.

Indifference, then, is not only a sin, it is a punishment. And this is one of the most important lessons of this outgoing century's wide-ranging experiments in good and evil.

In the place that I come from, society was composed of three simple categories: the killers, the victims, and the bystanders. During the darkest of times, inside the ghettoes and death camps -- and I'm glad that Mrs. Clinton mentioned that we are now commemorating that event, that period, that we are now in the Days of Remembrance -- but then, we felt abandoned, forgotten. All of us did.

And our only miserable consolation was that we believed that Auschwitz and Treblinka were closely guarded secrets; that the leaders of the free world did not know what was going on behind those black gates and barbed wire; that they had no knowledge of the war against the Jews that Hitler's armies and their accomplices waged as part of the war against the Allies.

If they knew, we thought, surely those leaders would have moved heaven and earth to intervene. They would have spoken out with great outrage and conviction. They would have bombed the railways leading to Birkenau, just the railways, just once.

And now we knew, we learned, we discovered that the Pentagon knew, the State Department knew. And the illustrious occupant of the White House then, who was a great leader -- and I say it with some anguish and pain, because, today is exactly 54 years marking his death -- Franklin Delano Roosevelt died on April the 12th, 1945, so he is very much present to me and to us.

No doubt, he was a great leader. He mobilized the American people and the world, going into battle, bringing hundreds and thousands of valiant and brave soldiers in America to fight fascism, to fight dictatorship, to fight Hitler. And so many of the young people fell in battle. And, nevertheless, his image in Jewish history -- I must say it -- his image in Jewish history is flawed.

The depressing tale of the St. Louis is a case in point. Sixty years ago, its human cargo -- maybe 1,000 Jews -- was turned back to Nazi Germany. And that happened after the Kristallnacht, after the first state sponsored pogrom, with hundreds of Jewish shops destroyed, synagogues burned, thousands of people put in concentration camps. And that ship, which was already on the shores of the United States, was sent back.

I don't understand. Roosevelt was a good man, with a heart. He understood those who needed help. Why didn't he allow these refugees to disembark? A thousand people -- in America, a great country, the greatest democracy, the most generous of all new nations in modern history. What happened? I don't understand. Why the indifference, on the highest level, to the suffering of the victims?

But then, there were human beings who were sensitive to our tragedy. Those non-Jews, those Christians, that we called the "Righteous Gentiles," whose selfless acts of heroism saved the honor of their faith. Why were they so few? Why was there a greater effort to save SS murderers after the war than to save their victims during the war?

Why did some of America's largest corporations continue to do business with Hitler's Germany until 1942? It has been suggested, and it was documented, that the Wehrmacht could not have conducted its invasion of France without oil obtained from American sources. How is one to explain their indifference?

And yet, my friends, good things have also happened in this traumatic century: the defeat of Nazism, the collapse of communism, the rebirth of Israel on its ancestral soil, the demise of apartheid, Israel's peace treaty with Egypt, the peace accord in Ireland. And let us remember the meeting, filled with drama and emotion, between Rabin and Arafat that you, Mr. President, convened in this very place. I was here and I will never forget it.

And then, of course, the joint decision of the United States and NATO to intervene in Kosovo and save those victims, those refugees, those who were uprooted by a man whom I believe that because of his crimes, should be charged with crimes against humanity. But this time, the world was not silent. This time, we do respond. This time, we intervene.

Does it mean that we have learned from the past? Does it mean that society has changed? Has the human being become less indifferent and more human? Have we really learned from our experiences? Are we less insensitive to the plight of victims of ethnic cleansing and other forms of injustices in places near and far? Is today's justified intervention in Kosovo, led by you, Mr. President, a lasting warning that never again will the deportation, the terrorization of children and their parents be allowed anywhere in the world? Will it discourage other dictators in other lands to do the same?

What about the children? Oh, we see them on television, we read about them in the papers, and we do so with a broken heart. Their fate is always the most tragic, inevitably. When adults wage war, children perish. We see their faces, their eyes. Do we hear their pleas? Do we feel their pain, their agony? Every minute one of them dies of disease, violence, famine. Some of them -- so many of them -- could be saved.

And so, once again, I think of the young Jewish boy from the Carpathian Mountains. He has accompanied the old man I have become throughout these years of quest and struggle. And together we walk towards the new millennium, carried by profound fear and extraordinary hope.

Elie Wiesel - April 12, 1999

#### 9. Text: Hague Appeal for Peace Conference Opening Plenary Speech

Author: Olara Otunnu

Source: <a href="http://www.haguepeace.org/showPage.php?url=opening/speech8.inc">http://www.haguepeace.org/showPage.php?url=opening/speech8.inc</a>

Genre: Speech

Topic: War

Theme: Protecting children in war torn areas

Lexile: 1200

Placement: Middle Range

Word Count: 1589

#### Olara Otunnu

## Special Representative of the Secretary General for Children and Armed Conflict

The Hague Appeal for Peace Conference was honored by the presence and voices of many Nobel Peace Prize Laureates, famous leaders and moral authorities from around the world. These speakers lent their support to the efforts of civil society organizations and individuals in the struggle for peace and justice. These speakers were joined by youths, grassroots activists, women and civil society leaders to ensure that a balanced message was conveyed in every meeting, workshop and plenary during the conference.

Opening Plenary, May 12, 1999

Excellencies, Dear Cora, Brothers and Sisters, here we are on the eve of a new millennium. There will be much to celebrate because in the modern era our civilization has achieved breathtaking advances in virtually every field of human endeavor.

And yet these quantum leaps in human progress coexist uneasily with a darker side to our civilization. Witness our capacity to inflict and tolerate grave injustice. See the way in which we can destroy entire communities in the quest for power. I believe that a crucial measure of our civilization must be about its human and humane quality. And above all it has to do with how we treat the most innocent and most vulnerable members of our community, those who represent the future of our society, our children.

On the eve of the new millennium we are witnessing an abomination, an abomination directed against children in the context of armed conflict. In the decade '86 to '96 alone, two million children were killed in war, more than one million orphaned, more than ten million were left with serious psychological trauma. As we meet here today, half the total population of refugees and those internally displaced within their countries are children, while over 300,000 young persons below the age of eighteen are being used as child soldiers. The magnitude of what we are witnessing today attests to a new phenomenon. There has been a qualitative shift in the nature and conduct of warfare. All the major armed conflicts in the world today, almost, are civil wars, lasting years if not decades. A key feature of the demonization of the so-called enemy community. The village has become the battlefield and civilian population the primary target.

It is against this background that today fully 90 percent of the casualties in on-going conflict are civilian populations, mainly women and children. Compare this with 5 percent in World War I. This is the world turned upside down. But this abomination is due in large measure to a crisis in value, a kind of ethical vacuum, a setting in which international standards are ignored with impunity, and where local value systems have lost their sway. We must not come to accept this abomination as normal. We can and must reverse this trend of abomination. I wish to put forward for your consideration some propositions in this regard.

First, let us resolve here in the Hague to launch an era of application, an era of the application of international norms and standards. Over the past 50 years, the nations of the world have developed a most impressive body of international humanitarian and human rights instruments. But the impact of these instruments is woefully thin on the ground. Words from paper cannot save children and women in peril. We must therefore shift our emphasis and our energies from the juridical project of elaboration of norms to the political project of insuring the application and respect on the ground.

Second proposition. We must not cast aside local value systems which have traditionally provided ethical bearing to our own society. The most damaging loss a society can suffer is the collapse of its own value system. Values matter even in times of war. In most societies, distinctions between acceptable and unacceptable practices were maintained, with taboo and in injunction proscribing the targeting of civilian populations, especially women and children. For example, I grew up in a society where the concept of Lapie was very strong. Among the people of Eastern Africa, Lapie denotes the cleanliness of one's claim. Before declaring war, the eldest would carefully examine their lapie to be sure that their community had a deep and well-founded grievance. But if this was established to be the case, they might declare war, but never lightly. Never lightly. But in order to preserve the original lapie, six injunctions would be issued to regulate the actual conduct of war. You did not attack children, women or the elderly. You did not destroy crops, granary stores or livestock, for to commit such taboos would be to soil your lapie, with the consequence that you would forfeit the blessing of the ancestors and thereby risk

losing war itself. Moreover, in declaring war, there was always the presumption of coexistence in the post-conflict period. Therefore, in constituting a war effort, you took great care to avoid committing taboos and acts of humiliation that would destroy forever the basis for future co-existence between the communities. I am sure that most of you could give similar examples from sacred value systems in your own societies around the world. We must mobilize all our resources, especially parents, extended families, elders, teachers, schools, and religious institutions to reclaim and reassert our lost taboos.

Third, in my recent visit to several countries, Sri Lanka, Sierra Leone, Sudan, discussions with the parties in the Democratic Republic of Congo parties in conflict have committed themselves to taking some of the following measures: to allow access, not to interfere with distribution of relief supplies, observe humanitarian cease-fire, not attack schools or hospitals, not recruit children as soldiers. The international community must hold them to these commitments. It is crucial that concern is an active act. Governments and civil society organizations should reinforce this message through their own channels of communication and influence. In today's interdependent world, no warring party, whether it is the state or an insurgency group, could ignore the concerted pressure of the wider international community.

Fourth, there is need to monitor and control the flow of arms into theaters of conflict, especially where there is evidence that children and women are being systematically brutalized. People kill, but the easier their ability of weapons greatly facilitate this project. This is why I strongly support the initiative launched be IANSA here, which has just been mentioned. We must swiftly insure that the protection and need of children are moved into a central concern and not merely an afterthought. That is why we must place the issue of their protection and need on the agenda for peace talks and ensure that it is given recognition and priority in peace accords. That is why we must ensure the participation of women in peace talks. Women as women, women as mothers, women advocates for families. They bring unique concerns and sensibilities that are often missing at the peace table. Children and women suffer disproportionately in times of war. That is why they are the highest stake in peace.

Sixth, we need in our world today spiritual renewal. And when we see signs of it here -- and when we see signs of it here and there around the world, we should welcome it. Let us embrace the people of faith, all faiths, and invite them to embrace each other, promoting together the fundamental values of faith, life, justice, forgiveness, reconciliation, that unite them, rather than fighting over the dark things that divide them. We need the spirit that will yield in order to bend the swords into ploughshares; the spirit that will say to the other, Amigo, Brother, Sister, because like you, they too are a child of god.

The last proposition I want to leave with you is the following. The best way to stop the suffering of children is to prevent the occurrence and recurrence of conflict.

Armed conflicts that bear roots in structural inequities and various practices of exclusion and marginalization. Three factors are especially relevant here. First, in too many societies today we are witnessing a phenomenon in which within a country there has developed a peripheral relationship, a situation in which there are systematic imbalances in the distribution of resources and political powers between different parts and sectors of the same country. To be meaning, development and growth must be about the people of a country as a whole, not just a section of it.

A second factor of conflict concerns the management of our diversity. It is crucial to foster a sense of coming belonging at the national level, while allowing below that the space for the expression of cultural, religious and regional diversities. Unfortunately, we have seen too many political leaders manipulate the diversities within their society in order to gain or retain power. We must struggle against this. And, thirdly, there is the issue of democratic practice. It is critical to build genuine democratic practice and the rule of law, because in the long run this provides the surest way for nonviolent and routine ways of mediating competing claims within our society.

Let me say in conclusion, we meet in the shadow of Kosovo. We must not forget the children of Kosovo. I have proposed a 10-point agenda for action for the children of Kosovo for which I will need your support. I want to say lastly that when we cut to the infrastructure of warfare, I have been touched and humbled by the examples of ordinary people doing extraordinary things within local communities, mostly women and children. I think of the host families in Albania and Macedonia, hosting the largest number of refugees on behalf of the international community. I think of my university roommate, who is running a hospice in the middle of war in Sudan with barely a shirt on his back or shoes on his feet. I think of the women rejoicing and singing in the middle of adversity, asking only for peace and for schooling for their children. That is why I say how shall we help them? I say go with them. Go children, go locals. Thank you.

#### 10. Text: "Utah Water Issues"

Author: Data Compiled by Stanford Innovation Studio Facilitators

Source: various sources imbedded in text compilation

Genre: Informational text: article, brochure, web site

Topic: Water in Utah

Theme: Water is a valuable and finite resource

Lexile: 1000

Placement: Middle Range

Word Count: 109

#### **Utah Water Issues**

#### http://www.ksl.com/index.php?hl=5&sid=10476302

Water capacity in Utah's reservoirs declining for first time

- -citizens depend on water stored in reservoirs
- -reservoirs build up sediment, taking up space for the water
- -lost space amounts to 0.2% per year, already reached 15%
- -will amount to 30% in the next 50 years
- -solutions? Build more storage? Raise price of water? Government incentives for water conservation?

http://www.water.utah.gov/brochures/uws broc.htm

#### **How Should I Use It?**

We need water to live, but it is a limited resource. Current and future demand for water makes it imperative that Utahns learn to use water wisely and conservatively to avoid water shortages. Ways to preserve and protect the daily water supply include:

- Check for leaks in pipes and fixtures around the home.
- Use water-saving devices such as low-flow shower heads, faucet flow restrictors, and ultra-low-flow (1.6gpf) toilets.

KITCHEN SINK (5.00%)

- Use **Xeriscape** principles to save time and water. Fundamentals of **Xeriscape** include landscaping planning and design, soil analysis, efficient watering, practical turf areas, appropriate plant selection, use of mulches, and appropriate maintenance.
- Use secondary water systems (water that has received minimum treatment) to water lawns and gardens, reserving higher quality, potable water for drinking and other human needs.
- · Recycle water, especially in industry.



UTILITY (2.00%)

LAUNDRY (14.00%)

#### What About the Future?

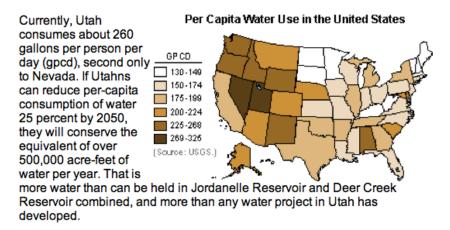
UTAH DEPTEMBATH

#### **Drought**

**Drought is a normal feature of climate.** During the past century, the U.S. has been plagued by numerous drought episodes and innumerable dry spells. In fact, it is unusual for drought not to occur somewhere in the nation each year.

Residents of Utah have learned the past 15 years that droughts of long and short duration produce significant problems. Producers of agricultural products, municipalities, and other water-dependent sectors or groups should adopt appropriate and efficient management practices that help alleviate the effects of drought. Preparing for drought risks should be routine.

http://www.conservewater.utah.gov/WhyConserve/



Without water conservation, we would have to develop a large volume of new water. With conservation, some water development projects can be postponed or delayed by several years.

#### We Live in a Desert

With the exception of the western portion of Washington, Oregon, and northern California, the western United States is arid and receives less annual precipitation than the rest of the nation. Next to Nevada, Utah receives the least precipitation - only 13 inches!

Because of Utah's arid climate, Utahns water their landscapes extensively to keep them lush and green. Most apply more water than needed. These landscapes, often composed of non-native plants from wetter regions, consume over half of Utah's municipal water supply and equates to 2/3 of a typical residential homeowners use.



#### 11. Text: Water Conservation

Source: The Glen Canyon Institute <u>www.glencanyon.org</u>

Genre: Web Site

Topic: Water Conservation

Theme: Water is a precious and finite commodity

Lexile: 1070

Placement: Middle Range

Word count: 1512

#### Water Conservation

From the Glen Canyon Institute http://www.glencanyon.org/

#### WHY CONSERVE WATER?

Water conservation is the most cost-effective and environmentally sound way to reduce our demand for water. Conserving water stretches our supplies farther and allows us to do more while using less. Although water is used all over the world to generate electricity, using less water actually conserves a vast amount of energy annually. Using less water also helps to alleviate pressures on our sewage and drainage systems. Most important, however, water conservation helps prolong the lifespan of lakes and rivers that are crucial to health of ecosystems around the world.

#### FACTS ON WATER

Below are a few amazing facts on water and its use around the world:

- Less than 2% of the Earth's water supply is fresh water; approximately 1% of that water is frozen.
- Every day in the United States, we drink about 110 million gallons of water.
- The average American uses 140-170 gallons of water per day.
- A leaky faucet can waste 100 gallons a day.
- An average bath requires 37 gallons of water.
- An average family of four uses 881 gallons of water per week just by flushing the toilet.
- The average 5-minute shower takes 15-25 gallons of water--around 40 gallons are used in 10 minutes.

- You use about 5 gallons of water if you leave the water running while brushing your teeth.
- Approximately 1 million miles of pipelines and aqueducts carry water in the U.S. & Canada. That's enough pipe to circle the earth 40 times.
- You can refill an 8-oz glass of water approximately 15,000 times for the same cost as a six-pack of soda pop.
- One inch of rainfall drops 7,000 gallons or nearly 30 tons of water on a 60' by 180' piece of land.

Some of these facts and tips are courtesy of the mojave water agency at www.mojavewater.org and the american water works association.

#### WHAT CAN YOU DO?

There are many effective ways to conserve water in and around your home. One easy way to start conserving water is to take stock of how much water you need vs. how much you use every day. Take a look at some of the suggestions below and find ways that work for you. (Indoor savings are based on a family of two adults and one child).

#### In the Bathroom

- Install low-flow faucet aerators on each of your faucets and a low-flow shower head in the bathroom. Older heads use 5-10 gallons per minute (gpm). All new fixtures use approximately 2.5 gpm and offer equal water coverage and force. You'll keep the water pressure high, but reduce your average household water usage by up to 45 gallons a day.
- There are many great, environmentally friendly options for dual-flush toilets that conserve water with every flush. For a do-it-yourself low-flow version, place 2 plastic bottles weighed down with pebbles and water inside your toilet tank (away from mechanical parts). Just make sure there are at least 3 gallons of water remaining in the tank so it flushes properly otherwise you'll have to flush twice and miss the whole point!

If you're taking a shower, don't waste cold water while waiting for hot water to reach the shower head. Catch that water in a container to use on your outside plants or to flush your toilet. This could save you as much as 200 to 300 gallons per month!

- You can save massive amounts of water annually just by fixing simple leaks around your house. The toilet is a common place for such leaks and it's an easy fix. To check a toilet for leaks, put dye tablets or a few drops of food coloring into the tank. If color appears in the bowl without flushing, there's a leak that should be repaired. Saves 400 gallons a month!
- Turn off the water while brushing your teeth. Those two to three minutes without the sink on can save two to three gallons of water each day. Also,

turn the water off while shaving. Instead, fill the bottom of the sink with a few inches of water to rinse your razor. Overall, these two simple adjustments can save you six gallons of water per day – that's 180 gallons per month!

#### In the Kitchen

- If you wash dishes by hand (which is the best way) don't leave the water running for rinsing. If you have two sinks, fill one with wash water and one with rinse water. If you only have one sink, consider using a spray device or short blasts of water instead of letting it run constant. Also, when washing dishes by hand, use the least amount of detergent as possible. Using less detergent will minimize the amount of water needed to rinse the dishes. Saves 250 to 650 gallons a month!
- Washing dishes by hand is the best method for water conservation. However, if you use a dishwasher you can still do your part in saving water. If you have a dishwasher, make sure you're only running full loads so that you make the best use of the water. Small loads use the same amount of water and get less work done. Also, consider purchasing a water-conserving dishwasher.
- Use less water when drinking. No don't stop drinking; just stop the wasteful habits associated with drinking water. For example, consider keeping a bottle of drinking water in the refrigerator for each member of the household or a pitcher for later use. This beats the habit of running tap water until its cool enough for drinking. Running the water for those few brief seconds every time you need a drink can use 200 to 300 gallons of water every month.
- Don't defrost frozen foods with running water. Either plan ahead by placing frozen items in the refrigerator overnight, or defrost them in the microwave. Saves 50 to 150 gallons a month.
- When you're cleaning vegetables, don't let the faucet run. Instead, rinse vegetables in a filled sink or pan. This can save 150 to 250 gallons per month. When you're done cleaning/peeling those vegetables, don't throw them down the garbage disposal. The garbage disposal requires running water. A better alternative would be to use old vegetable skins and other items for compost. Reducing use of the garbage disposal can save 50 to 150 gallons per month.

#### Outside

• Cut down on evaporation by putting a layer of mulch around trees and plants. Chunks of bark, peat moss, and/or gravel slows down evaporation. When mowing your lawn, set the lawn mower blades one notch higher. If you think you can do without the grass, then xeriscaping – replacing your lawn and high-water-using trees and plants with less thirsty ones – is a great option. If you're considering xeriscaping, do so only in wet years. Even drought resistant plantings take extra water to get them going. Mulch around

- trees and longer grass can save you 1,500 to 3000 gallons of water per month! Take the lawn out, and you'll save 500 to 1,500 gallons per month.
- Make sure to follow a few guidelines when watering your lawn. For example, water during the cool parts of the day, between 8:00 pm and 8:00 am. Early morning is better than dusk since it helps prevent the growth of fungus. Watering at this time as opposed to during the middle of the day can save 300 gallons of water.
- Make sure you avoid watering the lawn on windy days, as this drastically increases the amount of evaporation not to mention the water blowing away from your lawn. Watering on a windy day can waste up to 300 gallons in one watering! In addition, cut down watering on cool and overcast days and never water in the rain. Make sure you can easily adjust or deactivate automatic sprinklers if necessary.
- If your children enjoy playing in the sprinklers, try to let them do it when you're watering the yard if it's not too cool at that time of day. Some kids just like playing with the garden hose; most garden hoses shoot out 10 gallons of water every minute.
- Drive your car onto a lawn to wash it. Rinse water can help water the grass.
- When taking your car to a car wash which is a good idea for saving water be sure it's one of the many that recycles its wash water. If you're washing at home, consider driving your car onto the lawn to wash it, as rinse water can help water the grass.
- Finally, dispose of hazardous materials properly! One quart of oil can contaminate 250,000 gallons of water, effectively eliminating that much water from our water supply. Contact your city or county for proper waste disposal options. And never flush prescription medications!

Tips found in materials published by the Metropolitan Water District of Southern California (MWD) and other sources. Click here to read over 100 easy ways YOU can conserve water. <a href="http://www.wateruseitwisely.com/100-ways-to-conserve/index.php">http://www.wateruseitwisely.com/100-ways-to-conserve/index.php</a>

#### 12. Text: Gregorian Calendar

Source:

http://worldbookonline.com/student/article?id=ar236100&st=gregorian+calendar

Genre: Article

Topic: Calendar/Seasons

Theme: Why do we have Leap Year

Lexile: 1010

Text Complexity: Middle Range

Word Count: 151

**Gregorian** *«gruh GAWR ee uhn»,* **calendar** is the calendar that is used in almost all the world today. All modern business uses its dates. Pope Gregory XIII established it in 1582 to correct the Julian calendar, which Julius Caesar put into effect in 46 B.C. The Julian calendar year was 11 minutes and 14 seconds longer than the solar year. By A.D. 1580, this difference had accumulated to 10 days. Pope Gregory dropped 10 days from October to make the calendar year correspond more closely to the solar year. He also decreed that each fourth year would be a *leap year*, when February would have an extra day. Years marking the century would not be leap years unless divisible by 400. For example, 1600 and 2000 were leap years, but 1700, 1800, and 1900 were not. At present, the average Gregorian year is about 26 seconds longer than the solar year.

#### 13. California Invasive Plant Council

Source: <a href="http://www.corestandards.org/assets/Appendix B.pdf">http://www.corestandards.org/assets/Appendix B.pdf</a>

Genre: Public, Workplace, and Consumer Documents

**Topic: Invasive Plants** 

Theme: Biological Impact

Lexile: 1250

Placement: Middle Range

Word Count: 327

California Invasive Plant Council. Invasive Plant Inventory. http://www.calipc.org/ip/inventory/index.php. 2006–2010. (2010)

The Inventory categorizes plants as High, Moderate, or Limited, reflecting the level of each species' negative ecological impact in California. Other factors, such as economic impact or difficulty of management, are not included in this assessment. It is important to note that even Limited species are invasive and should be of concern to land managers. Although the impact of each plant varies regionally, its rating represents cumulative impacts statewide. Therefore, a plant whose statewide impacts are categorized as Limited may have more severe impacts in a particular region. Conversely, a plant categorized as having a High cumulative impact across California may have very little impact in some regions.

The Inventory Review Committee, Cal-IPC staff, and volunteers drafted assessments for each plant based on the formal criteria system described below. The committee solicited information from land managers across the state to complement the available literature. Assessments were released for public review before the committee finalized them. The 2006 list includes 39 High species, 65 Moderate species, and 89 Limited species. Additional information, including updated observations, will be added to this website periodically, with revisions tracked and dated.

#### **Definitions**

The Inventory categorizes "invasive non-native plants that threaten wildlands" according to the definitions below. Plants were evaluated only if they invade California wildlands with native habitat values. The Inventory does not include plants found solely in areas of human-caused disturbance such as roadsides and cultivated agricultural fields.

- Wildlands are public and private lands that support native ecosystems, including some working landscapes such as grazed rangeland and active timberland.
- Non-native plants are species introduced to California after European contact and as a direct or indirect result of human activity.
- Invasive non-native plants that threaten wildlands are plants that 1) are not native to, yet can spread into, wildland ecosystems, and that also 2) displace native species, hybridize with native species, alter biological

#### 14. Structure of the Earth

Source: <a href="http://www.physicalgeography.net/fundamentals/10h.html">http://www.physicalgeography.net/fundamentals/10h.html</a>

Genre: Informational Essay

Topic: Earth's Layers

Theme: Structure

Lexile: 1080

Placement: Middle Range

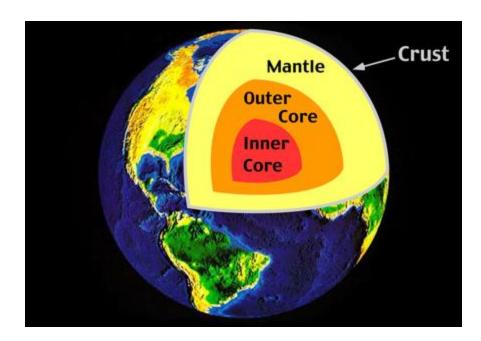
Word Count: 916

CHAPTER 10: Introduction to the Lithosphere

#### Structure of the Earth

The Earth is an oblate spheroid. It is composed of a number of different layers as determined by deep drilling and <u>seismic</u> evidence (**Figure 10h-1**). These layers are:

- The <u>core</u> which is approximately 7000 kilometers in diameter (3500 kilometers in radius) and is located at the Earth's center.
- The mantle which surrounds the core and has a thickness of 2900 kilometers.
- The <u>crust</u> floats on top of the mantle. It is composed of <u>basalt</u> rich oceanic crust and <u>granitic</u> rich continental crust.



**Figure 10h-1:** Layers beneath the Earth's surface.

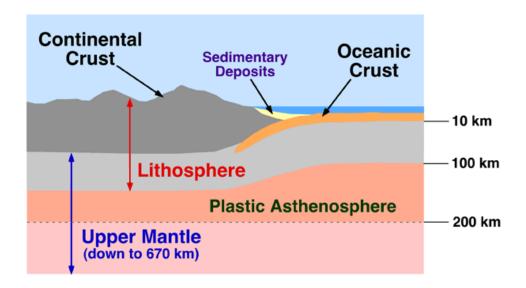
The core is a layer rich in iron and nickel that is composed of two layers: the *inner* and *outer cores*. The <u>inner core</u> is theorized to be solid with a density of about 13 grams per cubic centimeter and a radius of about 1220 kilometers. The <u>outer core</u> is liquid and has a density of about 11 grams per cubic centimeter. It surrounds the inner core and has an average thickness of about 2250 kilometers.

The <u>mantle</u> is almost 2900 kilometers thick and comprises about 83% of the Earth's volume. It is composed of several different layers. The <u>upper mantle</u> exists from the base of the crust downward to a depth of about 670 kilometers. This region of the Earth's interior is thought to be composed of <u>peridotite</u>, an ultramafic rock made up of the minerals <u>olivine</u> and <u>pyroxene</u>. The top layer of the upper mantle, 100 to 200 kilometers below surface, is called the <u>asthenosphere</u>. Scientific studies suggest that this layer has physical properties that are different from the rest of the upper mantle. The rocks in this upper portion of the mantle are more rigid and brittle because of cooler temperatures and lower pressures. Below the upper mantle is the <u>lower mantle</u> that extends from 670 to 2900 kilometers below the Earth's surface. This layer is hot and plastic. The higher pressure in this layer causes the formation of minerals that are different from those of the upper mantle.

The <u>lithosphere</u> is a layer that includes the crust and the upper most portion of the asthenosphere (**Figure 10h-2**). This layer is about 100 kilometers thick and has the ability to glide over the rest of the upper mantle. Because of increasing temperature and pressure, deeper portions of the lithosphere are capable of plastic flow over geologic time. The lithosphere is also the zone of <u>earthquakes</u>, <u>mountain building</u>, <u>volcanoes</u>, and <u>continental drift</u>.

The topmost part of the lithosphere consists of crust. This material is cool, rigid, and brittle. Two types of crust can be identified: oceanic crust and continental crust (**Figure 10h-2**). Both of these types of crust are less dense than the rock found in the underlying upper mantle layer. Ocean crust is thin and measures between 5 to 10 kilometers thick. It is also composed of basalt and has a density of about 3.0 grams per cubic centimeter.

The continental crust is 20 to 70 kilometers thick and composed mainly of lighter granite (Figure 10h-2). The density of continental crust is about 2.7 grams per cubic centimeter. It is thinnest in areas like the Rift Valleys of East Africa and in an area known as the Basin and Range Province in the western United States (centered in Nevada this area is about 1500 kilometers wide and runs about 4000 kilometers North/South). Continental crust is thickest beneath mountain ranges and extends into the mantle. Both of these crust types are composed of numerous tectonic plates that float on top of the mantle. Convection currents within the mantle cause these plates to move slowly across the asthenosphere.

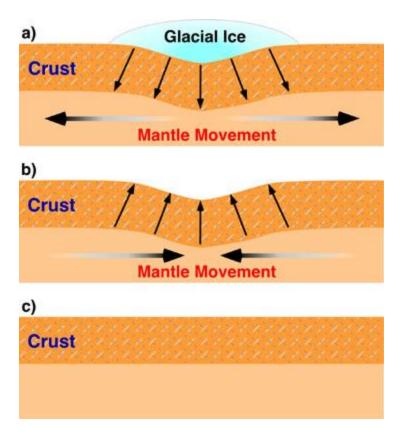


**Figure 10h-2:** Structure of the Earth's crust and top most layer of the upper mantle. The lithosphere consists of the oceanic crust, continental crust, and uppermost mantle. Beneath the lithosphere is the asthenosphere. This layer, which is also part of the upper mantle, extends to a depth of about 200 kilometers. Sedimentary deposits are commonly found at the boundaries between the continental and oceanic crust.

#### **Isostacy**

One interesting property of the continental and oceanic crust is that these <u>tectonic</u> <u>plates</u> have the ability to rise and sink. This phenomenon, known as <u>isostacy</u>, occurs because the crust floats on top of the mantle like ice cubes in water. When the Earth's crust gains weight due to mountain building or glaciation, it deforms and sinks deeper into the mantle (**Figure 10h-3**). If the weight is removed, the crust becomes more buoyant and floats higher in the mantle.

This process explains recent changes in the height of <u>sea-level</u> in coastal areas of eastern and northern Canada and Scandinavia. Some locations in these regions of the world have seen sea-level fall by as much as one meter over the last one hundred years. This fall is caused by <u>isostatic rebound</u>. Both of these areas where covered by massive glacial <u>ice sheets</u> about 10,000 years ago. The weight of the ice sheets pushed the crust deeper into the mantle. Now that the ice is gone, these areas are slowly increasing in height to some new <u>equilibrium</u> level.



**Figure 10h-3:** The addition of glacial ice on the Earth's surface causes the crust to deform and sink (a). When the ice melts, isostatic rebound occurs and the crust rises to its former position before glaciation (b and c). A similar process occurs with mountain building and mountain erosion (see **topic** <u>10l</u>).

# Part C-High Complexity

#### 1. Text: Make Poverty History

Source: <a href="https://www.makepovertyhistory.org/docs/mandelaspeech.doc">www.makepovertyhistory.org/docs/mandelaspeech.doc</a>

Genre: Speech

Topic: Poverty

Theme: Privileged nations are responsible to help under privileged nations.

Lexile: 1230

Placement: High Complexity

Word Count: 748

Mandela, Nelson. "Make Poverty History." Feb. 3, 2001. www.makepovertyhistory.org/docs/mandelaspeech.doc.

NELSON MANDELA'S SPEECH TO TRAFALGAR SQUARE CROWD

3rd February, 2005

#### Nelson Mandela pledges his support

Nelson Mandela has urged leaders to make poverty history, telling them to "recognize that the world is hungry for action, not words." The former South African president was addressing a crowd of thousands in London's Trafalgar Square at the campaign's first mass rally which also featured speeches from Bob Geldof and Oxfam's Adrian Lovett. He appealed for G7 leaders to make a concrete commitment to overcoming poverty at their meeting in London on 4th February and also emphasized the importance of 2005 as a great opportunity for change.

#### Mandela's speech in full

"I am privileged to be here today at the invitation of the campaign to Make Poverty History.

As you know, I recently formally announced my retirement from public life and should really not be here.

However, as long as poverty, injustice and gross inequality persist in our world, none of us can truly rest.

Moreover, the Global Campaign for Action Against Poverty represents such a noble cause that we could not decline the invitation.

Massive poverty and obscene inequality are such terrible scourges of our times - times in which the world boasts breathtaking advances in science, technology,

industry and wealth accumulation - that they have to rank alongside slavery and apartheid as social evils.

The Global Campaign for Action Against Poverty can take its place as a public movement alongside the movement to abolish slavery and the international solidarity against apartheid.

And I can never thank the people of Britain enough for their support through those days of the struggle against apartheid. Many stood in solidarity with us, just a few yards from this spot.

Through your will and passion, you assisted in consigning that evil system forever to history. But in this new century, millions of people in the world's poorest countries remain imprisoned, enslaved, and in chains.

They are trapped in the prison of poverty. It is time to set them free.

Like slavery and apartheid, poverty is not natural. It is man-made and it can be overcome and eradicated by the actions of human beings.

And overcoming poverty is not a gesture of charity. It is an act of justice. It is the protection of a fundamental human right, the right to dignity and a decent life. While poverty persists, there is no true freedom.

The steps that are needed from the developed nations are clear.

The first is ensuring trade justice. I have said before that trade justice is a truly meaningful way for the developed countries to show commitment to bringing about an end to global poverty.

The second is an end to the debt crisis for the poorest countries.

The third is to deliver much more aid and make sure it is of the highest quality.

In 2005, there is a unique opportunity for making an impact.

In September, world leaders will gather in New York to measure progress since they made the Millennium Declaration in the year 2000. That declaration promised to halve extreme poverty.

But at the moment, the promise is falling tragically behind. Those leaders must now honor their promises to the world's poorest citizens.

Tomorrow, here in London, the G7 finance ministers can make a significant beginning. I am happy to have been invited to meet with them.

The G8 leaders, when they meet in Scotland in July, have already promised to focus on the issue of poverty, especially in Africa.

I say to all those leaders: do not look the other way; do not hesitate. Recognize that the world is hungry for action, not words. Act with courage and vision.

I am proud to wear the symbol of this global call to action in 2005. This white band is from my country.

In a moment, I want to give this band to you - young people of Britain - and ask you to take it forward along with millions of others to the G8 summit in July. I entrust it to you. I will be watching with anticipation.

We thank you for coming here today. Sometimes it falls upon a generation to be great. You can be that great generation. Let your greatness blossom. Of course the task will not be easy. But not to do this would be a crime against humanity, against which I ask all humanity now to rise up. Make Poverty History in 2005. Make History in 2005. Then we can all stand with our heads held high."

#### 2. Text: Tsunamis Killer Waves

Source: http://environment.nationalgeographic.com/environment/naturaldisasters/tsunami-profile/

Genre: Informational essay

Topic: tsunamis

Theme: killer waves

Lexile: 1300

Placement: High Complexity

Word Count: 442

Nationalgeographic.com. "Tsunamis Killer Waves."

http://environment.nationalgeographic.com/environment/naturaldisasters/tsunami-profile/.

## **Tsunamis**

### Killer Waves

http://environment.nationalgeographic.com/environment/naturaldisasters/tsunami-profile/

A tsunami is a series of ocean waves that sends surges of water, sometimes reaching heights of over 100 feet (30.5 meters), onto land. These walls of water can cause widespread destruction when they crash ashore.

These awe-inspiring waves are typically caused by large, undersea earthquakes at tectonic plate boundaries. When the ocean floor at a plate boundary rises or falls suddenly it displaces the water above it and launches the rolling waves that will become a tsunami.

Most tsunamis, about 80 percent, happen within the Pacific Ocean's "Ring of Fire," a geologically active area where tectonic shifts make volcanoes and earthquakes common.

Tsunamis may also be caused by underwater landslides or volcanic eruptions. They may even be launched, as they frequently were in Earth's ancient past, by the impact of a large meteorite plunging into an ocean.

Tsunamis race across the sea at up to 500 miles (805 kilometers) an hour—about as fast as a jet airplane. At that pace they can cross the entire expanse of the Pacific Ocean in less than a day. And their long wavelengths mean they lose very little energy along the way.

In deep ocean, tsunami waves may appear only a foot or so high. But as they approach shoreline and enter shallower water they slow down and begin to grow in energy and height. The tops of the waves move faster than their bottoms do, which causes them to rise precipitously.

A tsunami's trough, the low point beneath the wave's crest, often reaches shore first. When it does, it produces a vacuum effect that sucks coastal water seaward and exposes harbor and sea floors. This retreating of sea water is an important warning sign of a tsunami, because the wave's crest and its enormous volume of water typically hit shore five minutes or so later. Recognizing this phenomenon can save lives.

A tsunami is usually composed of a series of waves, called a wave train, so its destructive force may be compounded as successive waves reach shore. People experiencing a tsunami should remember that the danger may not have passed with the first wave and should await official word that it is safe to return to vulnerable locations.

Some tsunamis do not appear on shore as massive breaking waves but instead resemble a quickly surging tide that inundates coastal areas.

The best defense against any tsunami is early warning that allows people to seek higher ground. The Pacific Tsunami Warning System, a coalition of 26 nations headquartered in Hawaii, maintains a web of seismic equipment and water level gauges to identify tsunamis at sea. Similar systems are proposed to protect coastal areas worldwide.

## 3. Text: "Perils of Indifference—And of Action"

Author: Clarence Page

Source: Chicago Tribune

Genre: News Article

Topic: Elie Wiesel's speech; conflict in Kosovo

Theme: Indifference vs Action

Lexile: 1280

Placement: High Complexity

Word Count: 800

#### Perils Of Indifference -- And Of Action

Chicago Tribune April 14, 1999 By Clarence Page.

WASHINGTON — Events have an ironic way of overtaking the best-laid plans of the Clinton White House.

More than a year ago First Lady Hillary Rodham Clinton invited Elie Wiesel, the distinguished author and Holocaust survivor, to speak at the White House "Millennium Evenings" series.

As she introduced Wiesel and President Clinton at the two-hour seminar Monday evening, Mrs. Clinton said she never could have imagined that the war in Kosovo would make Wiesel's topic, "The Perils of Indifference: Lessons Learned from a Violent Century," so relevant.

As I listened, I was taken not only by the discussion's relevance but also by its irrelevance. Much was said about how the catastrophe in Kosovo illustrates the perils of indifference. Too little was said about the perils of action, specifically the actions taken by President Clinton and NATO that have made bad matters worse.

Wiesel was the first to note a key difference between world reaction to Yugoslav President Slobodan Milosevic's "ethnic cleansing" of ethnic Albanians in the Kosovo region of his country and the war Adolf Hitler waged against the Jews.

"This time," Wiesel said, "the world was not silent."

Nor has the world been indifferent. Despite painful memories of our Vietnam debacle and the fevered harangues of isolationist naysayers, polls show most Americans want to help. We are a nation of compassionate people willing to make tremendous sacrifices for others, but only if we think our actions will do more good than harm.

Unfortunately, when the United States and NATO took action, hoping bombs would force the Yugoslav president to back off, Milosevic's removal of ethnic Albanians speeded up and his political position in Yugoslavia was strengthened.

Too much of the debate in Washington has focused on whether we should send ground troops to Kosovo, a risky venture in that tree-covered and mountainous region. History shows the Yugoslavian military might well do to the U.S. what it did to the German Wehrmacht during World War II, hand us an apparent victory in a day or two, then take to the hills for an endless guerrilla war. The Germans lost thousands of soldiers and never took Yugoslavia.

As an alternative, some American leaders are proposing that we offer aid to the independence-minded Kosovo Liberation Army and let them take over the fight against Milosevic. But the extremist KLA, some of whom are murderous thugs, may not be the sort of army we want to support, either.

Indifference at the end of the 20th Century is undermined by modern news media. But the media also encourage us to think in terms of solutions that are as quick and easy to digest as the 10-second sound bite or a network mini-series.

"The Face of Evil" crows the cover of Newsweek, next to Milosevic's photo. But Milosevic is neither the beginning nor the end of Balkan problems.

Nothing excuses Milosevic's bloody tyranny, but he is not the same sort of tyrant as Hitler. We make a mistake if we try to demonize Milosevic too much. Unlike Hitler, who wanted to wipe out the Jews, Milosevic's forced removal of ethnic Albanians has different roots. It grew, in part, out of his overreaction to the KLA's attacks against Serbs and even some fellow ethnic Albanians who were believed to be insufficiently committed to the KLA's cause.

A realistic solution in Kosovo must show an appreciation for the complexities of a history that has a deeper presence in the lives of central Europeans than we Americans usually feel. Many Serbs regard their defeat by the Ottoman Turks in 1389 "as if it happened last week," observed Rep. Rod Blagojevich (D-Ill.), the House's only member of Serbian descent.

From the House floor and in an op-ed in Tuesday's Washington Post, Blagojevich has called for a settlement that would partition Kosovo and would take four factors into account:

- It must keep as many of Kosovo's sacred Orthodox cathedrals and historic places as possible within Serbia, properly appreciating the widely held Serbian view that Kosovo is the cradle of their civilization.
- It should seek to place as many Albanian homes as possible within an area of self-rule contiguous to Albania.
- It must include the Russians as part of the agreement, defusing Russian resentment of NATO bombing and taking advantage of close historic relations between Serbs and Russians.
- Finally, the partition boundaries must be drawn not just along ethnic lines but along strategically defensible lines, assuring their long-term stability.

Blagojevich does not have all the answers, but at least his formula contains an appreciation for history and its complexities, an appreciation too often missing in the Kosovo debate. History matters. Indifference holds many perils, but so does a failure to act with intelligence.

#### 4. The Salem Witch Trials

Source: www.kids.nationalgeographic.com/kids/stories/history/salem-witch-trials

Genre: Editorial Article

Topic: Salem Witch Trials

Theme: Point of View/Stereotypes

Lexile: 1090

Placement: High Complexity

Word Count: 554

The Salem Witch Trials

A witch craze swept the small Puritan community of Salem Village, Massachusetts in 1692. It began when a group of girls gathered in the evenings in the home of Reverend Parris to listen to stories told by one of his slaves, Tituba. They also played fortune-telling games, which were strictly forbidden by the Puritans. One night, while trying to see the faces of their future husbands in an egg white dropped in a glass of water, one girl believed she saw the shape of a coffin.

Soon after, the girls began acting strangely, leading the Puritan community to suspect that the girls were victims of witchcraft. The girls named three townswomen, including Tituba, as the witches who were torturing them.

The three women were put on trial for practicing witchcraft. Tituba confessed to having seen the devil and also stated that there was a coven, or group, of witches in the Salem Village area. The other two women, Sarah Good and Sarah Osbourne, insisted they were innocent. The court didn't believe them, and found them guilty of practicing witchcraft.

As the weeks passed, the affected girls accused other townspeople of torturing them, and some on trial also named others as witches. Women were not the only ones believed to be witches—men and even some children were accused. By the end of the trials in 1693, 24 people had died, some in jail but most by hanging. Some of the accused had confessed as being witches, but none of them were hanged.

The Puritan way of life was very strict, and even small differences in behavior could make people suspicious. Religious leaders instilled a fear of the devil and preached that those who did not conform to the Puritan way of life would be used by the devil to carry out his wishes. No one is really sure why the witch craze spread the way it

did, but it did bring lasting changes to the legal system and the way testimony and witnesses were treated, and the Salem Village hangings were the last executions of accused witches in America.

Text By: Sara Zeglin

#### 5. Math Trek: Adventures in the Math Zone

Source: <a href="http://www.corestandards.org/assets/Appendix\_B.pdf">http://www.corestandards.org/assets/Appendix\_B.pdf</a>

Genre: How-To

**Topic: Fractals** 

Theme: Math in Nature

Lexile: 1490

Placement: High Complexity

Word Count: 397

Peterson, Ivars and Nancy Henderson. Math Trek: Adventures in the Math Zone. San Francisco: Jossey-Bass, 2000. (2000) From "Trek 7, The Fractal Pond Race"

From the meanderings of a pond's edge to the branching of trees and the intricate forms of snowflakes, shapes in nature are often more complicated than geometrical shapes such as circles, spheres, angles, cones, rectangles, and cubes. Benoit Mandelbrot, a mathematics professor at Yale University and an IBM fellow, was the first person to recognize how amazingly common this type of structure is in nature. In 1975, he coined the term fractal for shapes that repeat themselves within an object. The word fractal comes from the Latin term for "broken."

In 1904, long before Mandelbrot conceived of fractals, Swedish mathematician Helge von Koch created and intriguing but puzzling curve. It zigzags in such an odd pattern that it seems impossible to start at one point and follow the curve to reach another point.

Like many figures now known to be fractals, Koch's curve is easy to generate by starting with a simple figure and turning it into an increasingly crinkly form.

What to Do

- 1. Draw an equilateral triangle with each side measuring 9 centimeters. (Remember, each angle of an equilateral triangle measures  $60^\circ$ .)
- 2. Divide each 9-centimeter side into three parts, each measuring three centimeters. At the middle of each side, add an equilateral triangle one third the size of the original, facing outward. Because each side of the original triangle is 9 centimeters, the new triangles will have 3-centimeter sides. When you examine the outer edge of your diagram you should see a six-pointed star made up of 12 line segments.

- 3. At the middle of each segment of the star, add a triangle one ninth the side of the original triangle. The new triangles will have sides 1 centimeter in length so divide each 3-centimeter segment into thirds, and use the middle third to form a new triangle.
- 4. Going one step farther, you create a shape that begins to resemble a snowflake. If you were to continue the process by endlessly adding smaller and smaller triangles to every new side, you would produce the Koch snowflake curve. Between any two points, the snowflake would have an infinite number of zigzags.

## 6. Cathedral: The Story of its Construction

Source: <a href="http://www.corestandards.org/assets/Appendix B.pdf">http://www.corestandards.org/assets/Appendix B.pdf</a>

Genre: Informational Essay

**Topic: Cathedral Construction** 

Theme: Innovation

Lexile: 1140

Placement: High Complexity

Word Count: 318

Macaulay, David. Cathedral: The Story of Its Construction. Boston: Houghton Mifflin,

1973. (1973) From pages 51-56

In order to construct the vaulted ceiling a wooden scaffold was erected connecting the two walls of the choir one hundred and thirty feet above ground. On the scaffolding wooden centerings like those used for the flying buttresses were installed. They would support the arched stone ribs until the mortar was dry, at which times the ribs could support themselves. The ribs carried the webbing, which was the ceiling itself. The vaults were constructed one bay at a time, a bay being the rectangular area between four piers.

One by one, the cut stones of the ribs, called voussoirs, were hoisted onto the centering and mortared into place by the masons. Finally the keystone was lowered into place to lock the ribs together at the crown, the highest point of the arch.

The carpenters then installed pieces of wood, called lagging, that spanned the space between two centerings. On top of the lagging the masons laid one course or layer of webbing stones. The lagging supported the course of webbing until the mortar was dry. The webbing was constructed of the lightest possible stone to lessen the weight on the ribs. Two teams, each with a mason and a carpenter, worked simultaneously from both sides of the vault – installing first the lagging, then the webbing. When they met in the center the vault was complete. The vaulting over the aisle was constructed in the same way and at the same time.

When the mortar in the webbing had set, a four-inch layer of concrete was poured over the entire vault to prevent any cracking between the stones. Once the concrete had set, the lagging was removed and the centering was lowered and moved onto the scaffolding of the next bay. The procedure was repeated until eventually the entire choir was vaulted.

# 7. Geeks: "The Evolution of the Grocery Bag."

Source: <a href="http://www.corestandards.org/assets/Appendix B.pdf">http://www.corestandards.org/assets/Appendix B.pdf</a>

Genre: Informative Essay

Topic: Grocery Bags

Theme: Innovation

Lexile: 1470

Placement: High Complexity

Word Count: 376

Petroski, Henry. "The Evolution of the Grocery Bag." American Scholar 72.4

(Autumn 2003). (2003)

That much-reviled bottleneck known as the American supermarket checkout lane would be an even greater exercise in frustration were it not for several technological advances. The Universal Product Code and the decoding laser scanner, introduced in 1974, tally a shopper's groceries far more quickly and accurately than the old method of inputting each purchase manually into a cash register. But beeping a large order past the scanner would have led only to a faster pileup of cans and boxes down the line, where the bagger works, had it not been for the introduction, more than a century earlier, of an even greater technological masterpiece: the square-bottomed paper bag.

The geometry of paper bags continues to hold a magical appeal for those of us who are fascinated by how ordinary things are designed and made. Originally, grocery bags were created on demand by storekeepers, who cut, folded, and pasted sheets of paper, making versatile containers into which purchases could be loaded for carrying home. The first paper bags manufactured commercially are said to have been made in Bristol, England, in the 1840s. In 1852, a "Machine for Making Bags of Paper" was patented in America by Francis Wolle, of Bethlehem, Pennsylvania. According to Wolle's own description of the machine's operation, "pieces of paper of suitable length are given out from a roll of the required width, cut off from the roll and otherwise suitably cut to the required shape, folded, their edges pasted and lapped, and formed into complete and perfect bags." The "perfect bags" produced at the rate of eighteen hundred per hour by Wolle's machine were, of course, not perfect, nor was his machine. The history of design has yet to see the development of a perfect object, though it has seen many satisfactory ones and many substantially improved ones. The concept of comparative improvement is embedded in the

paradigm for invention, the better mousetrap. No one is ever likely to lay claim to a "best" mousetrap, for that would preclude the inventor himself from coming up with a still better mousetrap without suffering the embarrassment of having previously declared the search complete. As with the mousetrap, so with the bag.

# 8. Travels with Charley: In Search of America

Source: <a href="http://www.corestandards.org/assets/Appendix B.pdf">http://www.corestandards.org/assets/Appendix B.pdf</a>

Genre: Journal/Autobiography

**Topic: Traveling Experiences** 

Theme: Cultures Communicate Differently

Lexile: 960

Placement: High Complexity

Word Count: 216

Steinbeck, John. Travels with Charley: In Search of America. New York: Penguin,

1997. (1962) From pages 27-28

I soon discovered that if a wayfaring stranger wishes to eavesdrop on a local population the places for him to slip in and hold his peace are bars and churches. But some New England towns don't have bars, and church is only on Sunday. A good alternative is the roadside restaurant where men gather for breakfast before going to work or going hunting. To find these places inhabited one must get up very early. And there is a drawback even to this. Early-rising men not only do not talk much to strangers, they barely talk to one another. Breakfast conversation is limited to a series of laconic grunts. The natural New England taciturnity reaches its glorious perfection at breakfast.

[...]

I am not normally a breakfast eater, but here I had to be or I wouldn't see anybody unless I stopped for gas. At the first lighted roadside restaurant I pulled in and took my seat at a counter. The customers were folded over their coffee cups like ferns. A normal conversation is as follows:

WAITRESS: "Same?"

CUSTOMER: "Yep."

WAITRESS: "Cold enough for you?"

CUSTOMER: "Yep."

(Ten minutes.)

WAITRESS: "Refill?"

CUSTOMER: "Yep."

This is a really talkative customer

# 9. Preamble and First Amendment to the United States Constitution. (1787, 1791)

Source: <a href="http://www.corestandards.org/assets/Appendix B.pdf">http://www.corestandards.org/assets/Appendix B.pdf</a>

Genre: Historic Document

Topic: Government

Theme: Citizenship

Lexile: 1340

Placement: High Complexity

Word Count: 113

United States. Preamble and First Amendment to the United States Constitution. (1787, 1791)

#### **Preamble**

We, the People of the United States, in Order to form a more perfect Union, establish Justice, insure domestic Tranquility, provide for the common defence, promote the general Welfare, and secure the Blessings of Liberty to ourselves and our Posterity, do ordain and establish this Constitution of the United States of America.

#### **Amendment I**

Congress shall make no law respecting the establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of people peaceably to assemble, and to petition the Government for a redress of grievances.

# 10. The Life and Songs of Woody Guthrie

Source: http://www.corestandards.org/assets/Appendix B.pdf

Genre: Biography

Topic: The Great Depression

Theme: Economic Change/Poverty

Lexile: 1220

Placement: High Complexity

Word Count: 348

Partridge, Elizabeth. This Land Was Made for You and Me: The Life and Songs of Woody Guthrie. New York: Viking, 2002. (2002) From the Preface: "Ramblin 'Round"

"I hate a song that makes you think that you're not any good. I hate a song that makes you think you are just born to lose. I am out to fight those kind of songs to my very last breath of air and my last drop of blood." Woody Guthrie could never cure himself of wandering off. One minute he'd be there, the next he'd be gone, vanishing without a word to anyone, abandoning those he loved best. He'd throw on a few extra shirts, one on top of the other, sling his guitar over his shoulder, and hit the road. He'd stick out his thumb and hitchhike, swing onto moving freight trains, and hunker down with other traveling men in flophouses, hobo jungles, and Hoovervilles across Depression America.

He moved restlessly from state to state, soaking up some songs: work songs, mountain and cowboy songs, sea chanteys, songs from the southern chain gangs. He added them to the dozens he already knew from his childhood until he was bursting with American folk songs. Playing the guitar and singing, he started making up new ones: hard-bitten, rough-edged songs that told it like it was, full of anger and hardship and hope and love. Woody said the best songs came to him when he was walking down a road. He always had fifteen or twenty songs running around in his mind, just waiting to be put together. Sometimes he knew the words, but not the melody. Usually he'd borrow a tune that was already well known—the simpler the better. As he walked along, he tried to catch a good, easy song that people could sing the first time they heard it, remember, and sing again later.

## 11. Words We Live By: Your Annotated Guide to the Constitution

Source: <a href="http://www.corestandards.org/assets/Appendix B.pdf">http://www.corestandards.org/assets/Appendix B.pdf</a>

Genre: Informational Text Exerpt

Topic: Government

Theme: Citizenship

Lexile: 1400

Placement: High Complexity

Word Count: 299

Monk, Linda R. Words We Live By: Your Annotated Guide to the Constitution. New York: Hyperion, 2003. (2003) From "We the People ..."

The first three word of the Constitution are the most important. They clearly state that the people—not the king, not the legislature, not the courts—are the true rulers in American government. This principle is known as popular sovereignty.

But who are "We the People"? This question troubled the nation for centuries. As Lucy Stone, one of America's first advocates for women's rights, asked in 1853, "We the People'? Which 'We the People'? The women were not included." Neither were white males who did not own property, American Indians, or African Americans—slave or free. Justice Thurgood Marshall, the first African American on the Supreme Court, described the limitation:

For a sense of the evolving nature of the Constitution, we need look no further than the first three words of the document's preamble: 'We the People.' When the Founding Fathers used this phrase in 1787, they did not have in mind the majority of America's citizens . . . The men who gathered in Philadelphia in 1787 could not . . . have imagined, nor would they have accepted, that the document they were drafting would one day be construed by a Supreme court to which had been appointed a woman and the descendant of an African slave.

Through the Amendment process, more and more Americans were eventually included in the Constitution's definition of "We the People." After the Civil War, the Thirteenth Amendment ended slavery, the Fourteenth Amendment gave African Americans citizenship, and the Fifteenth Amendment gave black men the vote. In 1920, the Nineteenth Amendment gave women the right to vote nationwide, and in 1971, the Twenty-sixth Amendment extended suffrage to eighteen-year-olds.

# 12. Will Jeremy Lin's Success End Stereotypes?

Source: Timothy Yu CNN.com 2/20/12

Genre: Editorial Article

Topic: Jeremy Lin

Theme: Point of View/Stereotypes

Lexile: 1430

Placement: High Complexity

Word Count: 773

The spectacular rise of Jeremy Lin, the first Asian-American to achieve basketball stardom, has been utterly thrilling to witness. We've watched with pride ashe's broken through stereotypes to prove that an Asian-American can play alongside -- and beat -- the best in the NBA. And we've been gratified by the way Lin's story has been embraced by the American public, with



fans of all races cheering him on. But we've also been reminded of the ugliness with which Asians have often been depicted in American culture.

After Lin's 38-point performance against the Los Angeles Lakers on February 10, Fox Sports columnist Jason Whitlock tweeted an offensive joke about Lin that played off stereotypes of Asians' lack of masculinity. Boxer Floyd Mayweather has asserted that "all the hype" around Lin is just "because he's Asian." And after New Orleans snapped the Knicks' Lin-led seven-game winning streak, ESPN posted a story with a headline that was an obvious anti-Chinese slur.

Stereotypes of Asians have been a staple of American popular culture since the 19th century, from newspaper cartoons of menacing, bucktoothed Chinese to film characters like the evil Dr. Fu Manchu and the bowing, pidgin-speaking Charlie Chan.

In contemporary America, Asians -- when they appear at all -- are generally depicted as comical foreigners with "ching-chong" accents, from exchange student Long Duk Dong ("What's happening, hot stuff?") in Sixteen Candles to Han Lee, the stereotyped Korean restaurant owner in CBS's hit comedy 2 Broke Girls.

American culture tells us, in short, that Lin shouldn't exist. Every time he drives to the basket, he upends stereotypes of Asians as short, weak and nerdy. Every time he talks to the media, he dispels the idea that all Asian-Americans are like foreigners speaking broken English.

Throughout his career, Lin has endured racist taunts from opponents and fans. And he's been overlooked repeatedly. After a spectacular high school career, no college offered him a scholarship. After he starred at Harvard, no NBA team drafted him. He was dropped by Golden State and Houston before landing on the Knicks' bench, and only got his shot when his team got desperate.

## Is the 'Linsanity' hype caused by race?

Even as "Linsanity" gripped the nation, commentators and fellow players continued to play down Lin's talents. From the declarations that Lin was a "fluke" and a "flash in the pan" to Kobe Bryant's grudging comment that Lin was "a testament to perseverance and hard work," the message was clear: Asian-Americans don't really belong on the basketball court. We've heard again and again that "no one knew" how good Lin was, but let's get real. Lin was overlooked because when people looked at him, they saw a stereotype, not a basketball star.

As Lin led the Knicks to victory after victory, I watched with giddy excitement, but also a sense of worry: What would happen when the inevitable loss came? Would the resentment captured in Mayweather's tweet rear its head? Sure enough, the night the Knicks lost to the Hornets, there was the offensive headline from ESPN. I imagine that many Asian-Americans got the same sinking feeling as I did: Here is the moment where the media will turn on Lin, bringing back the racist stereotypes that have been held at bay by Lin's winning streak.

To my surprise, something else happened. ESPN quickly apologized, then announced that it had fired the author of the headline and suspended an anchor who had used the same phrase on the air. This was remarkable, because although certain kinds of racist attacks against African-Americans in the media have become unacceptable, anti-Asian rhetoric typically goes unpunished. Asian-Americans have become accustomed to having our protests against media stereotypes shrugged off and ignored. But on this one, ESPN took quick action.

Phil Yu, of the popular blog Angry Asian Man, wrote about this "Jeremy Lin Effect." Slurs and stereotypes that would previously have been used with impunity were getting a good, hard look, and a major media outlet responded to Asian-American critics with a swiftness that would have been unimaginable a few weeks ago.

We shouldn't romanticize this: ESPN knows that Lin is the biggest story in sports right now, and it can't afford to alienate or offend those hungry for their daily dose of Lin. But perhaps that's precisely the point. Lin has become so big that simply by being himself—an Asian-American, comfortable in his own skin, playing basketball brilliantly on the world's biggest stage and enjoying himself as he does it—he may be revolutionizing our culture. The Jeremy Lin Effect won't end racism, but it does mean that Asian-Americans will never be seen the same way again

# 13. Solar Flare: What If Biggest Known Sun Storm Hit Today?

Source: <a href="http://news.nationalgeographic.com/news/2012/03/120308-solar-flare-storm-sun-space-weather-science-aurora/">http://news.nationalgeographic.com/news/2012/03/120308-solar-flare-storm-sun-space-weather-science-aurora/</a>

Lexile: 1360

Genre: News Article

Topic: Solar Flares

Theme: Science in Action

Placement: High Complexity

Word Count: 1,087

Source: Solar Flare: What If Biggest Known Sun Storm Hit Today?

Repeat of 1859 space-weather event could paralyze modern life, experts say.

Richard A. Lovett for National Geographic News Updated March 8, 2012

A powerful sun storm—associated with the second biggest solar flare of the current 11-year sun cycle—is now hitting Earth, so far with few consequences. But the potentially "severe geomagnetic storm," in NASA's words, could disrupt power grids, radio communications, and GPS as well as spark dazzling auroras.

The storm expected Thursday, though, won't hold a candle to an 1859 spaceweather event, scientists say—and it's a good thing too.

If a similar sun storm were to occur in the current day—as it well could—modern life could come to a standstill, they add.

As solar storms go, the two March 6 solar flares associated with Thursday's geomagnetic storm around Earth may not compare to the flares behind the 1859 storm. But, since the sun hasn't yet reached peak activity for this solar cycle, this week's outburst may be only a taste of flares to come.

"The sun has an activity cycle, much like hurricane season," Tom Bogdan, director of the U.S. Space Weather Prediction Center in Boulder, Colorado, said \at a meeting of the American Association for the Advancement of Science in Washington, D.C. in 2011.

After "hibernating for four or five years, not doing much of anything," the sun began waking up about a year ago. Even though the upcoming solar maximum may see a record low in the overall amount of activity, the individual events could be very powerful, Bogdan added.

In fact, the biggest solar storm on record—the 1859 blast—happened during a solar maximum about the same size as the one we're entering, according to NASA.

That storm has been dubbed the Carrington Event, after British astronomer Richard Carrington, who witnessed the megaflare and was the first to realize the link between activity on the sun and geomagnetic disturbances on Earth.

During the Carrington Event, northern lights were reported as far south as Cuba and Honolulu, while southern lights were seen as far north as Santiago, Chile.

The flares were so powerful that "people in the northeastern U.S. could read newspaper print just from the light of the aurora," Daniel Baker, of the University of Colorado's Laboratory for Atmospheric and Space Physics, said at a geophysics meeting in December 2010.

In addition, the geomagnetic disturbances were strong enough that U.S. telegraph operators reported sparks leaping from their equipment—some bad enough to set fires, said Ed Cliver, a space physicist at the U.S. Air Force Research Laboratory in Bedford. Massachusetts.

In 1859, such reports were mostly curiosities. But if something similar happened today, the world's high-tech infrastructure could grind to a halt.

"What's at stake," the Space Weather Prediction Center's Bogdan said, "are the advanced technologies that underlie virtually every aspect of our lives."

Solar Flare Would Rupture Earth's "Cyber Cocoon"

To begin with, the University of Colorado's Baker said, electrical disturbances as strong as those that took down telegraph machines—"the Internet of the era"—would be far more disruptive.

Solar storms aimed at Earth come in three stages, not all of which occur in any given storm.

First, high-energy sunlight, mostly x-rays and ultraviolet light, ionizes Earth's upper atmosphere, interfering with radio communications. Next comes a radiation storm, potentially dangerous to unprotected astronauts.

Finally comes a coronal mass ejection, or CME, a slower moving cloud of charged particles that can take several days to reach Earth's atmosphere. When a CME hits, the solar particles can interact with Earth's magnetic field to produce powerful electromagnetic fluctuations.

"We live in a cyber cocoon enveloping the Earth," Baker said. "Imagine what the consequences might be."

Of particular concern are disruptions to global positioning systems (GPS), which have become ubiquitous in cell phones, airplanes, and automobiles, Baker said. A \$13 billion business in 2003, the GPS industry is predicted to grow to nearly \$1 trillion by 2017.

In addition, Baker said, satellite communications—also essential to many daily activities—would be at risk from solar storms.

"Every time you purchase a gallon of gas with your credit card, that's a satellite transaction," he said.

But the big fear is what might happen to the electrical grid, since power surges caused by solar particles could blow out giant transformers. Such transformers can take a long time to replace, especially if hundreds are destroyed at once, said Baker, who is a co-author of a National Research Council report on solar-storm risks.

The U.S. Air Force Research Laboratory's Cliver agrees: "They don't have a lot of these on the shelf," he said.

The eastern half of the U.S. is particularly vulnerable, because the power infrastructure is highly interconnected, so failures could easily cascade like chains of dominoes.

"Imagine large cities without power for a week, a month, or a year," Baker said. "The losses could be \$1 to \$2 trillion, and the effects could be felt for years."

Even if the latest solar maximum doesn't bring a Carrington-level event, smaller storms have been known to affect power and communications.

The "Halloween storms" of 2003, for instance, interfered with satellite communications, produced a brief power outage in Sweden, and lighted up the skies with ghostly auroras as far south as Florida and Texas.

# **Buffing Up Space-Weather Predictions**

One solution is to rebuild the aging power grid to be less vulnerable to solar disruptions.

Another answer is better forecasting.

Scientists using NASA's Solar Dynamics Observatory spacecraft are hoping to get a better understanding of how the sun behaves as it moves deeper into its next maximum and begins generating bigger storms.

These studies may help scientists predict when and where solar flares might appear and whether a given storm is pointed at Earth.

"Improved predictions will provide more accurate forecasts, so [officials] can take mitigating actions," said Rodney Viereck, a physicist at the Space Weather Prediction Center.

Even now, the center's Bogdan said, the most damaging emissions from big storms travel slowly enough to be detected by sun-watching satellites well before the particles strike Earth. "That gives us [about] 20 hours to determine what actions we need to take," Viereck said.

In a pinch, power companies could protect valuable transformers by taking them offline before the storm strikes. That would produce local blackouts, but they

wouldn't last for long.

"The good news is that these storms tend to pass after a couple of hours," Bogdan added.

Meanwhile, scientists are scrambling to learn everything they can about the sun in an effort to produce even longer-range forecasts.

According to Vierick, space-weather predictions have some catching up to do: "We're back where weather forecasters were 50 years ago."

# 14. Monster Magnetic Storm Sideswipes Earth

Source: <a href="http://www.worldbookonline.com/student/behindheadline?p=3577">http://www.worldbookonline.com/student/behindheadline?p=3577</a>

Genre: News Article

Topic: magnetic Storms

Theme: Science in Action

Lexile: 1200 Estimated

Placement: High Complexity

Word Count: 359

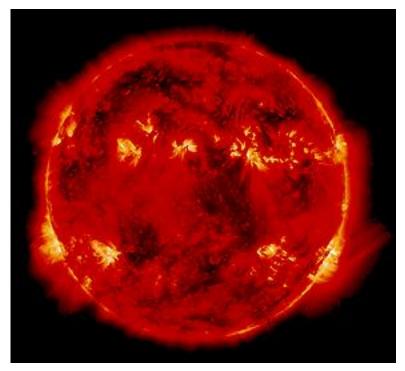
**Monster Magnetic Storm Sideswipes Earth** 

March 8, 2012

A massive wave of radiation from the sun-the most intense since 2006-is walloping Earth today, according to the Space Weather Prediction Center (SWPC), a division of the National Oceanic and Atmospheric Administration (NOAA). This ball of plasma and charged particles, called a coronal mass ejection (CME), is causing the second major magnetic storm in Earth's magnetic field this week. The latest solar outburst originated in a monster solar flare that erupted from the surface of the sun on Tuesday, March 6. Several NASA satellites videoed the flare as it hurled the CME toward Earth. Traveling through space at 4 million miles (6.4 million kilometers) per hour, the CME first hit Earth shortly after midnight. Fortunately, the eruption sideswiped Earth rather than hitting it head-on.

CME's are the strongest type of solar eruptions, releasing enough energy to supply all of Earth's commercial energy needs for more than 12,000 years. The magnetic storms they cause have the potential to seriously disrupt radio and satellite communications, including GPS signals and airline communications, and electric power transmission. The charged particles also may produce displays of the

northern lights much farther south than normal. Authorities said the effects of the current storm could last for 24 hours. The CME was not expected to affect the health of people on Earth's surface.



The sun blazes with energy. On its surface, magnetic forces create loops and streams of gas that extend tens of thousands of miles or kilometers into space. This image was made by photographing ultraviolet radiation given off by atoms of iron gas that are hotter than 9 million °F (5 million °C). NASA/Transition Region & Coronal Explorer

On Sunday, March 4, another flare—the most powerful of 2012 so far—erupted from a different sunspot. That CME hit Earth's magnetic field on the night of Wednesday, March 7. Radiation from that storm was still creating turbulence in Earth's magnetic field when the second storm arrived. The sun is currently entering a more active phase, after several years of quiet. Solar activity varies over a period of about 11 years. The current cycle is expected to reach its peak in 2013.

# 15. Narrative of the Life of Fredrick Douglass an American Slave, Written by Himself

Source: <a href="http://www.corestandards.org/assets/Appendix B.pdf">http://www.corestandards.org/assets/Appendix B.pdf</a>

Genre: Autobiography

Topic: Slavery

Theme: Inequality

Lexile: 1280

Placement: High Complexity

Word Count: 965

Douglass, Frederick. Narrative of the Life of Frederick Douglass an American Slave,

Written by Himself. Boston:

Anti-Slavery Office, 1845. (1845)

The plan which I adopted, and the one by which I was most successful, was that of making friends of all the little white boys whom I met in the street. As many of these as I could, I converted into teachers. With their kindly aid, obtained at different times and in different places, I finally succeeded in learning to read. When I was sent of errands, I always took my book with me, and by going one part of my errand quickly, I found time to get a lesson before my return. I used also to carry bread with me, enough of which was always in the house, and to which I was always welcome; for I was much better off in this regard than many of the poor white children in our neighborhood. This bread I used to bestow upon the hungry little urchins, who, in return, would give me that more valuable bread of knowledge. I am strongly tempted to give the names of two or three of those little boys, as a testimonial of the gratitude and affection I bear them; but prudence forbids;—not that it would injure me, but it might embarrass them; for it is almost an unpardonable offence to teach slaves to read in this Christian country. It is enough to say of the dear little fellows, that they lived on Philpot Street, very near Durgin and Bailey's ship-yard. I used to talk this matter of slavery over with them. I would sometimes say to them, I wished I could be as free as they would be when they got to be men. "You will be free as soon as you are twenty-one, but I am a slave for life! Have not I as good a right to be free as you have?" These words used to trouble them; they would express for me the liveliest sympathy, and console me with the hope that something would occur by which I might be free.

I was now about twelve years old, and the thought of being a slave for life began to bear heavily upon my heart. Just about this time, I got hold of a book entitled "The Columbian Orator." Every opportunity I got, I used to read this book. Among much of other interesting matter, I found in it a dialogue between a master and his slave. The slave was represented as having run away from his master three times. The dialogue represented the conversation which took place between them, when the slave was retaken the third time. In this dialogue, the whole argument in behalf of slavery was brought forward by the master, all of which was disposed of by the slave. The slave was made to say some very smart as well as impressive things in reply to his master—things which had the desired though unexpected effect; for the conversation resulted in the voluntary emancipation of the slave on the part of the master.

In the same book, I met with one of Sheridan's mighty speeches on and in behalf of Catholic emancipation. These were choice documents to me. I read them over and over again with unabated interest. They gave tongue to interesting thoughts of my own soul, which had frequently flashed through my mind, and died away for want of utterance. The moral which I gained from the dialogue was the power of truth over the conscience of even a slaveholder. What I got from Sheridan was a bold denunciation of slavery, and a powerful vindication of human rights. The reading of these documents enabled me to utter my thoughts, and to meet the arguments brought forward to sustain slavery; but while they relieved me of one difficulty, they brought on another even more painful than the one of which I was relieved. The more I read, the more I was led to abhor and detest my enslavers. I could regard them in no other light than a band of successful robbers, who had left their homes, and gone to Africa, and stolen us from our homes, and in a strange land reduced us to slavery. I loathed them as being the meanest as well as the most wicked of men. As I read and contemplated the subject, behold! that very discontentment which Master Hugh had predicted would follow my learning to read had already come, to torment and sting my soul to unutterable anguish. As I writhed under it, I would at times feel that learning to read had been a curse rather than a blessing. It had given me a view of my wretched condition, without the remedy. It opened my eyes to the horrible pit, but to no ladder upon which to get out. In moments of agony, I envied my fellow-slaves for their stupidity. I have often wished myself a beast. I preferred the condition of the meanest reptile to my own. Any thing, no matter what, to get rid of thinking! It was this everlasting thinking of my condition that tormented me. There was no getting rid of it. It was pressed upon me by every object within sight or hearing, animate or inanimate. The silver trump of freedom had roused my soul to eternal wakefulness. Freedom now appeared, to disappear no more forever. It was heard in every sound, and seen in every thing. It was ever present to torment me with a sense of my wretched condition. I saw nothing without seeing it, I heard nothing without hearing it, and felt nothing without feeling it. It looked from every star, it smiled in every calm, breathed in every wind, and moved in every storm

## 16. How Atom Smashers Work

Source: <a href="http://science.howstuffworks.com/atom-smasher.htm">http://science.howstuffworks.com/atom-smasher.htm</a>

Genre: Informational

Topic: Matter

Theme: Scientific Endeavors

Lexile: 1230

Placement: High Complexity

Word Count: 549

### **How Atom Smashers Work**

by <u>Craig Freudenrich</u>, Ph.D.

Early in the 20th century, we discovered the structure of the <u>atom</u>. We found that the atom was made of smaller pieces called **subatomic particles** -- most notably the proton, neutron, and electron. However, experiments conducted in the second half of the 20th century with "atom smashers," or **particle accelerators**, revealed that the subatomic structure of the atom was much more complex. Particle accelerators can take a particle, such as an electron, speed it up to near the <u>speed of light</u>, collide it with an atom and thereby discover its internal parts.

In this article, we will look at these amazing devices and how the results they obtain tell us about the fundamental structure of matter, the forces holding it together and the origins of the universe!

## **Smashing Atoms**

In the 1930s, scientists investigated <u>cosmic rays</u>. When these highly energetic particles (protons) from outer space hit atoms of lead (i.e. nuclei of the atoms), many smaller particles were sprayed out. These particles were not protons or neutrons, but were much smaller. Therefore, scientists concluded that the <u>nucleus</u> must be made of smaller, more elementary particles. The search began for these particles.

At that time, the only way to collide highly energetic particles with atoms was to go to a mountaintop where cosmic rays were more common, and conduct the experiments there. However, physicists soon built devices called **particle** 

**accelerators**, or **atom smashers**. In these devices, you accelerate particles to high speeds -- high kinetic energies -- and collide them with target atoms. The resulting pieces from the collision, as well as emitted radiation, are detected and analyzed. The information tells us about the particles that make up the atom and the forces that hold the atom together. A particle accelerator experiment has been described as determining the structure of a <u>television</u> by looking at the pieces after it has been dropped from the Empire State Building.

#### A Particle Accelerator

The cathode ray tube (CRT) of any <u>TV</u> or <u>computer monitor</u> is really a particle accelerator.

♠ Cathode
 ♠ Phosphor-coated screen
 ♠ Conductive coating
 ♠ Electron beams

Anode G Shadow mask

The CRT takes particles (electrons) from the cathode, speeds them up and changes their direction using <u>electromagnets</u> in a vacuum and then smashes them into phosphor molecules on the screen. The collision results in a lighted spot, or pixel, on your TV or computer monitor.

A particle accelerator works the same way, except that they are much bigger, the particles move much faster (near the speed of light) and the collision results in more subatomic particles and various types of <u>nuclear radiation</u>. Particles are accelerated by electromagnetic waves inside the device, in much the same way as a surfer gets pushed along by the wave. The more energetic we can make the particles, the better we can see the structure of matter. It's like breaking the rack in a billiards game. When the cue ball (energized particle) speeds up, it receives more energy and so can better scatter the rack of balls (release more particles).

Particle accelerators come in two basic types:

- **Linear** Particles travel down a long, straight track and collide with the target.
- **Circular** Particles travel around in a circle until they collide with the target.

## 17. Internet Explorer 9 Falls at Pwn20wn Hacking Contest

Source: http://www.pcmag.com/article2/0,2817,2401392,00.asp

Genre: Informational

Topic: Hacking

Theme: Security

Lexile: 1250

Placement: High Complexity

Word Count: 417

## **Internet Explorer 9 Falls at Pwn20wn Hacking Contest**

## • By Angela Moscaritolo

• March 9, 2012 04:07pm EST

First Google Chrome fell, and now Microsoft's Internet Explorer 9 has been exploited.

The Microsoft browser on Thursday was taken down at the CanSecWest Pwn2Own hacking competition by a team of hackers with the French research firm Vupen. The hackers exploited two zero-day vulnerabilities, described as a heap overflow bug and a memory corruption flaw, to crack Internet Explorer 9. The hackers were able to run code outside the browser's Protected Mode sandbox, a security feature meant to contain malicious code and prevent it from executing on a system. In doing so, they were able to take control of a fully-patched Windows 7 machine.

The code execution attack they developed requires no user interaction beyond browsing to a rigged website, ZDNet reported. It works on old versions of the browser, such as IE 6, all the way up to IE version 10, which is currently only available for consumer preview.

"This one was difficult," Vupen co-founder Chaouki Bekrar told ZDNet. "When you have to combine many vulnerabilities and bypass all these protections, it takes a longer time."

Representatives from Microsoft were at the event and said they plan to respond to the flaw once receiving information about it by contest organizers, ZDNet said.

Pwn20wn, held every year at the CanSecWest security conference in Vancouver, tests hackers to find vulnerabilities in four Web browsers—Microsoft Internet Explorer, Apple Safari, Google Chrome and Mozilla Firefox. The contest is based on a points system, with zero-day exploits against the latest version of a browser awarded 32 points. To win, a team or individual must have demonstrated at least one zero-day.

Bekrar said two of his researchers worked full-time for six weeks developing the IE exploit specifically for the contest. On top of that, he said his team had zero-day flaws at the ready for every browser on every operating system.

Their preparations appear to have paid off. Vupen on Wednesday started the three-day contest on a high note by hacking into Google Chrome. It was the first time a competitor successfully hacked Chrome during Pwn2Own.

Ahead of the Pwn2Own, Google announced that it would dole out a total of \$1 million in prize money for successful Chrome hacks, to entice competitors to target the browser and to use the exploits to help bolster the browser's security.

#### 18. The Great Fire

Source: <a href="http://www.corestandards.org/assets/Appendix B.pdf">http://www.corestandards.org/assets/Appendix B.pdf</a>

Genre: Excerpt

Topic: Fire/Destruction

Theme: Disasters

Lexile: 1130

Placement: High Complexity

Word Count: 329

Murphy, Jim. The Great Fire. New York: Scholastic, 1995. (1995) From Chapter 1: "A City Ready to Burn"

Chicago in 1871 was a city ready to burn. The city boasted having 59,500 buildings, many of them—such as the Courthouse and the Tribune Building—large and ornately decorated. The trouble was that about two-thirds of all these structures were made entirely of wood. Many of the remaining buildings (even the ones proclaimed to be "fireproof") looked solid, but were actually jerrybuilt affairs; the stone or brick exteriors hid wooden frames and floors, all topped with highly flammable tar or shingle roofs. It was also a common practice to disguise wood as another kind of building material. The fancy exterior decorations on just about every building were carved from wood, then painted to look like stone or marble. Most churches had steeples that appeared to be solid from the street, but a closer inspection would reveal a wooden framework covered with cleverly painted copper or tin.

The situation was worst in the middle-class and poorer districts. Lot sizes were small, and owners usually filled them up with cottages, barns, sheds, and outhouses—all made of fast-burning wood, naturally. Because both Patrick and Catherine O'Leary worked, they were able to put a large addition on their cottage despite a lot size of just 25 by 100 feet. Interspersed in these residential areas were a variety of businesses—paint factories, lumberyards, distilleries, gasworks, mills, furniture manufacturers, warehouses, and coal distributors.

Wealthier districts were by no means free of fire hazards. Stately stone and brick homes had wood interiors, and stood side by side with smaller wood-frame houses. Wooden stables and other storage buildings were common, and trees lined the streets and filled the yards.

# Media Text

The Great Chicago Fire, an exhibit created by the Chicago Historical Society that includes essays and images:http://www.chicagohs.org/fire/intro/gcf-index.html

# 19. Harriet Tubman: Conductor on the Underground Railroad

Source: http://www.corestandards.org/assets/Appendix B.pdf

Genre: Informational Excerpt

Topic: Freedom

Theme: Slavery

Lexile: 1210

Placement: High Complexity

Word Count: 247

Petry, Ann. Harriet Tubman: Conductor on the Underground Railroad. New York: HarperCollins, 1983. (1955) From Chapter 3: "Six Years Old"

By the time Harriet Ross was six years old, she had unconsciously absorbed many kinds of knowledge, almost with the air she breathed. She could not, for example, have said how or at what moment she knew that she was a slave.

She knew that her brothers and sisters, her father and mother, and all the other people who lived in the quarter, men, women and children were slaves.

She had been taught to say, "Yes, Missus," "No, Missus," to white women, "Yes, Mas'r," "No, Mas'r" to white men. Or, "Yes, sah," "No, sah."

At the same time someone had taught her where to look for the North Star, the star that stayed constant, not rising in the east and setting in the west as the other stars appeared to do; and told her that anyone walking toward the North could use that star as a guide.

She knew about fear, too. Sometimes at night, or during the day, she heard the furious galloping of horses, not just one horse, several horses, thud of the hoofbeats along the road, jingle of harness. She saw the grown folks freeze into stillness, not moving, scarcely breathing, while they listened. She could not remember who first told her that those furious hoofbeats meant that patrollers were going in pursuit of a runaway. Only the slaves said patterollers, whispering the word.

# 20. A Short Walk through the Pyramids and through the World of Art

Source: <a href="http://www.corestandards.org/assets/Appendix B.pdf">http://www.corestandards.org/assets/Appendix B.pdf</a>

Genre: Excerpt

**Topic: Pyramids** 

Theme: Art

Lexile: 1270

Placement: High Complexity

Word Count: 334

Isaacson, Phillip. A Short Walk through the Pyramids and through the World of Art.

New York: Knopf, 1993. (1993) From Chapter 1

At Giza, a few miles north of Saggara, sit three great pyramids, each named for the king – or Pharaoh – during whose reign it was built. No other buildings are so well known, yet the first sight of them sitting in their field is breathtaking. When you walk among them, you walk in a place made for giants. They seem too large to have been made by human beings, too perfect to have been formed by nature, and when the sun is overhead, not solid enough to be attached to the sand. In the minutes before sunrise, they are the color of faded roses, and when the last rays of the desert sun touch them, they turn to amber. But whatever the light, their broad proportions, the beauty of the limestone, and the care with which it is fitted into place create three unforgettable works of art.

What do we learn about art when we look at the pyramids?

First, when all of the things that go into a work – its components – complement one another, they create and object that has a certain spirit, and we can call that spirit harmony. The pyramids are harmonious because limestone, a warm, quiet material, is a cordial companion for a simple, logical, pleasing shape. In fact, the stone and the shape are so comfortable with each other that the pyramids seem inevitable – as though they were bound to have the form, color, and texture that they do have.

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which includes diagrams, pictures, and a time line: http://www.nationalgeographic.com/pyramids/pyramids.html